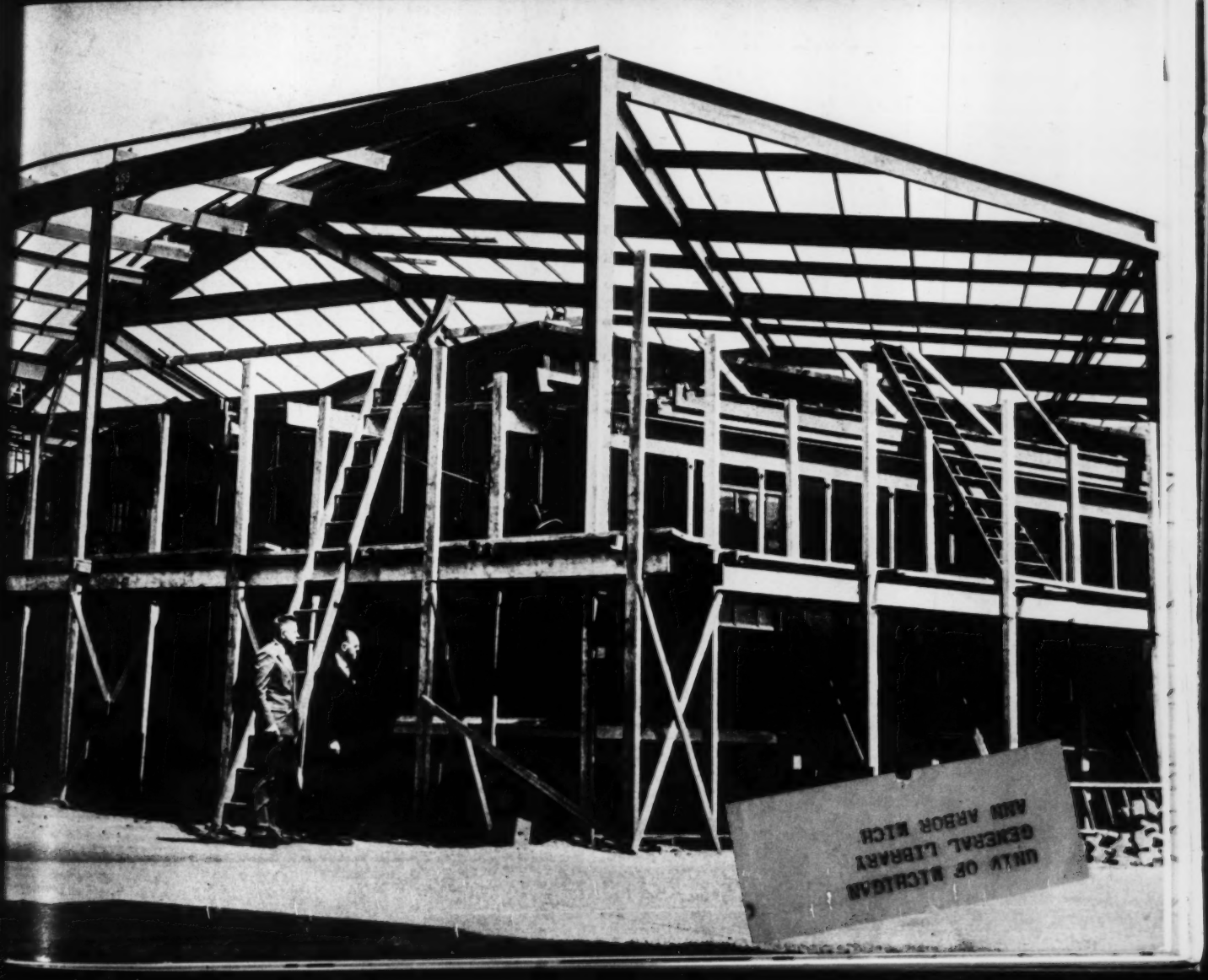
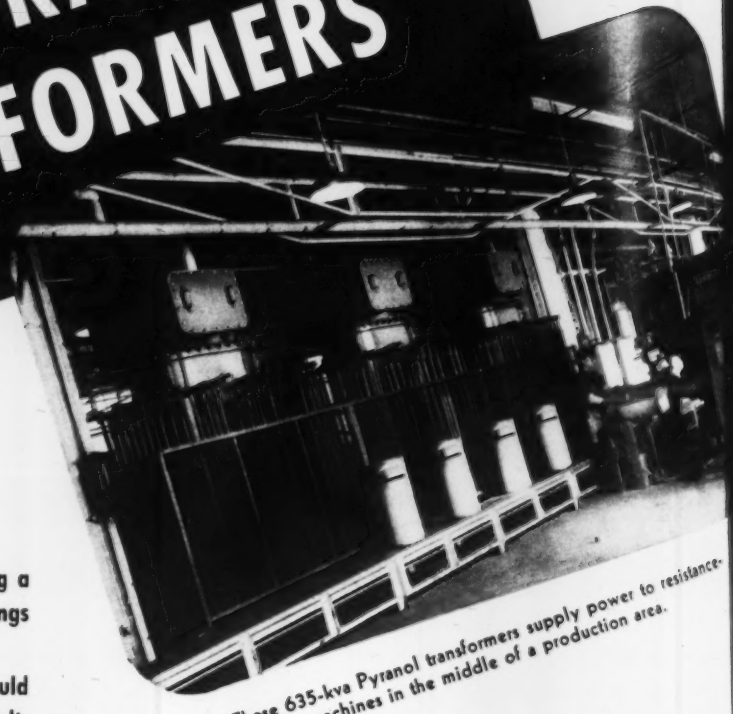
ENGINEERING NEWS-RECORD

Laboratory remains in service while new building with special roof framing is built around it.



TO THE HUNDREDS OF NEW USERS OF PYRANOL TRANSFORMERS



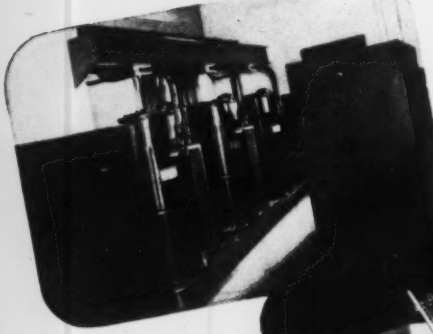
These 635-kva Pyranol transformers supply power to resistance-welding machines in the middle of a production area.

By installing Pyranol transformers (instead of making a conventional transformer installation) you made big savings in materials and over-all installed cost.

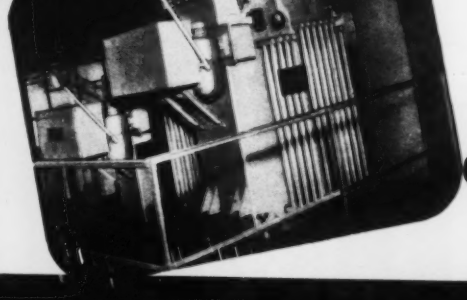
You reduced installation time and cost, because you could install these transformers indoors without a fireproof vault.

You saved copper—many tons of it if your plant is a large one—because you could install these transformers right at load centers, where transformers were meant to be installed.

You reduced line losses and voltage drop in your plant circuits and assured better performance from motors, resistance-heating equipment, lamps, and other electric equipment.



Vaultless installation of these 225-kva Pyranol transformers in a steel-mill motor room meant savings in materials plus economical power distribution.



These G-E load-center unit substations, incorporating Pyranol transformers, are part of a G-E load-center power-distribution system in an expanding war plant.

Safety of Pyranol—an Asset to Your Plant

Since the introduction of Pyranol in 1932, more than 4,000,000 kva of new transformers have been furnished with this type of noninflammable insulating and cooling liquid. No Pyranol transformer, in 10 years of operating experience, has burned or contributed to a fire.

Greater Reliability—a Continuing Benefit

The high dielectric strength of Pyranol means extra stamina to resist damage from voltage surges resulting from switching operations or lightning. This is a safeguard against progressive deterioration of the insulation that might otherwise result in a transformer breakdown and loss of power service.

Pyranol transformers have other features that mean greater reliability and little maintenance. The pressure-tight steel tank protects both liquid and solid insulation—keeps out dust, dirt, moisture, and other enemies of transformer life. Pyranol is nonoxidizing and nonsludging. It will retain its insulating properties over years of normal operation. *General Electric, Schenectady, N. Y.*

General Electric and its employees are proud of the Navy award of Excellence made to its Erie Works for the manufacture of naval ordnance.

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The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • JULY 23, 1942 • VOLUME 129 • NUMBER 4

Strong WPB stand terminates Penna. building trade strike

Stabilization of construction labor situation seen advanced after strong telegram from Nelson ends Pittsburgh defiance of year-old stabilization agreement

Stabilization of the construction labor situation moved a long way forward this week when striking carpenters, operating engineers, plasterers, and laborers went back to work on five federal construction projects in the Pittsburgh area.

Last week's strike on these jobs represented the first clear-cut defiance of a ruling by the WPB board of review, which administers the year-old construction stabilization agreement. And termination of the strike after dispatch of a strong telegram over Donald Nelson's signature indicates that the agreement has real teeth in it.

The Pittsburgh dispute had its inception last December when collective bargaining negotiations resulted in a 25 cents an hour increase for the carpenters, cement finishers, and engineers and 10 cents for the laborers. These rates were to become effective June 1. On that date five major federal projects were underway: The Defense Plant Corp. had two steel mill projects for Carnegie-Illinois. The Navy had three projects—shipyards being built for Dravo Corp. and American Bridge Co., and a manufacturing plant for Kerotest Co.

Late in June, the unions demanded that the new rates apply to these federal jobs. When this was refused on the grounds that the stabilization agreement provides that rates in effect at the beginning of a federal job shall continue until it is completed or a year has passed, the unions went on strike briefly.

The June strike was called off to permit adjudication of the dispute by the Board of Review. In a decision announced last week, the board held that the old rates must continue until the jobs are finished; the first is due to be completed in October, the last in April.

The unions, however, refused to accept the decision, and a second stoppage occurred. Thereupon, the unions were warned that unless the men went back to work, "drastic steps" would be taken. The men went back to work.

No public intimation was given as to what the "drastic steps" would have been, though the union leaders doubtless had a pretty good idea. In a similar situation in the last war, President Wilson threatened to bar strikers from all future employment on war jobs. General belief in Washington is that any measure that became necessary would have received the support of other trades in the Building Trades Department.

With the construction labor situation thus pretty well under control (*ENR*, July 15, p. 53), the chief threat to stability in the industry appears to be the generally inflationary trend of the economy as a whole. The long-awaited Little Steel decision, in which the War Labor Board granted steel workers a 44 cent a day increase, seems sure to initiate a wave of new increases. Obviously, the new WLB policy of maintaining the "real" wage level of January, 1941, presents no barrier to inflation, since each increase in prices necessarily must be reflected in further wage increases.

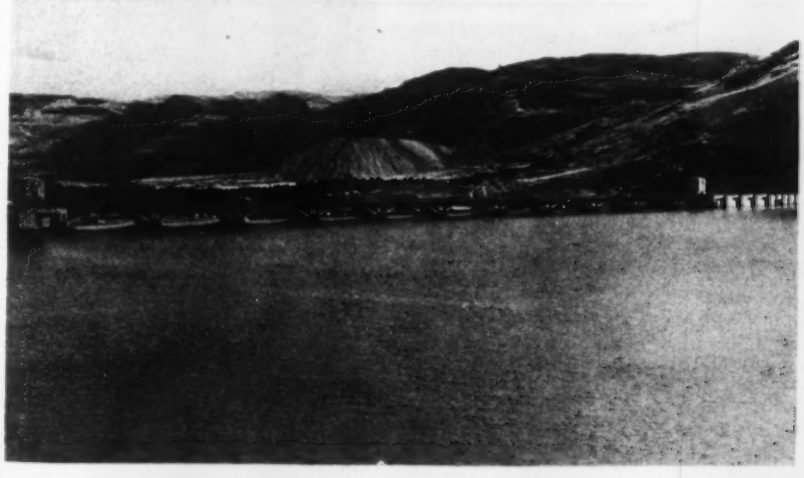
Unless the President takes considerably more action on prices than appeared likely early this week, it seems doubtful that the relatively stable construction arrangements can be maintained indefinitely in the face of rising prices and a rising general wage level.

• • •

Loans made available to engineering students

Engineering students who are within two years of graduation are now eligible for federal loans up to $500 a year to assist them to complete courses. Loans, which are to be applied for through the college or university attended, bear 2½ percent interest and will be cancelled should the student be drafted, disabled, or die.

In return, students must agree to take, for the duration of the war, any job assigned to them by Paul McNutt's War Manpower Commission.



Foundations for this bridge cost many millions

Speaking of bridges, here's one whose foundations cost many millions of dollars. They comprise the spillway section of Grand Coulee Dam. This view looks across the portion of the reservoir immediately upstream from the spillway. At the bridge ends are the tops of the elevator shafts that lead from roadway level into the tunnels that traverse the dam lengthwise. In the center background is the pile of 12,000,000 cu.yd., more or less, of waste material taken out of the Brett gravel pits in upper right, and was wasted in the spoil pile as rejects from the gravel plant, since dismantled.

New Pennsylvania flash floods wreck Alleghany River bridges, facilities

Sudden rise of river kills 10, washes out railroad and highway structures, damages riverside factory installations.

Swollen by heavy rains that caused two dam breaks, the upper Alleghany River broke over its banks last week, spreading devastation in three north-central Pennsylvania counties and in southern New York State.

At least ten persons were known to be dead, and damage to highways, railroad trackage, factory property and farmlands was uncounted at mid-week.

Reminiscent of floods in the central part of the state earlier in the year (*ENR* May 28, p. 884), the damage brought the immediate problem of replacement of needed communications arteries by makeshift and substitution, in view of the ever-tightening strategic materials situation.

Two earthen flood control dams—one above Austin, Pa., and the other near Johnsonburg on the Clarion River—crumpled under the force of the water, which carried away trackage, farm building, highway bridges and anything else in its path.

Port Allegheny, Pa., just below the New York-Pennsylvania border, appeared to be hardest hit. Almost every business building in the town was flooded with water ranging from 3 to 20 feet in depth; gas, electric and water service were cut off by the flood waters.

In its progress across McKean, Potter and Elk Counties in Pennsylvania, and near Olean, N. Y., the flood hit hard at other towns, including Johnsonburg, Coundersport, Austin, Bradford, Eldred, Roulette and Smethport, Pa., and Olean.

At least three railroad bridges in the area were washed out—although exactly how badly they were damaged could not be determined immediately—and a large new highway bridge at Port Alleghany fell in to the river after waters had washed out its underpinnings (see illustration right).

The State Department of Highways, already involved in extensive reconstruction work after damages inflicted by the previous floods, rushed engineers to the scene to determine immediate replacement needs.

Wisconsin town hit by flood

Part of the town of Bayfield, Wis., a fishing village of 1,200 persons on the shore of Lake Superior, was washed into the lake early this week in a freak flood.

Heavy rains swelled a group of small ponds on hills immediately behind the town, until the water broke through earth banks and roared into the village in a 20-foot wall. The water dug a gully 20 ft. deep across the main sector of the village, sweeping five business houses and part of a cemetery into the lake before it. A railroad bridge also was swept away.

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Sanitary engineers to discuss wartime problems

Emergency technical problems in the field of sewerage, sewage treatment and general sanitation will hold the spotlight at the third annual meeting of the Federation of Sewage Works Associations, set for Cleveland, O., Oct. 22-24.

Terming the session a "Conference on Wartime Sanitation" the convention management committee under the direction of William L. Havens, said the program will be devoted exclusively to wartime problems, discussed by nationally-recognized leaders in the field. Additionally, the group will conduct a "Priorities Clinic" at which manufacturers' representatives and Federation officials will seek to interpret existing priority regulations for municipal administrators.

Award Texas-Illinois pipeline contracts

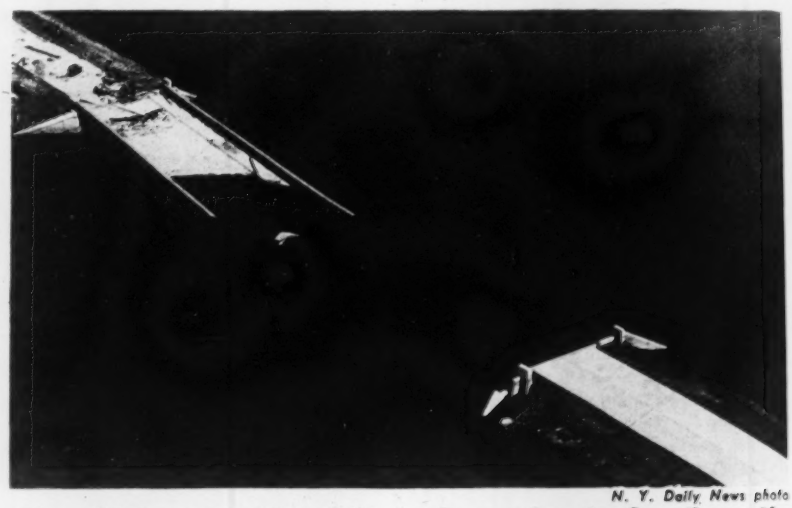
Petroleum Coordinator Harold L. Ickes last week announced award of seven contracts for construction of the 24-in., 550 mile oil pipeline between the Texas Panhandle and Central Illinois (*ENR* July 16, p. 76).

Contracts were awarded on a cost-plus-fixed-fee basis, with total cost estimated at $35,000,000.

Successful contractors, and sections they will build, are:

Williams Brothers, Tulsa, Okla.—section from Longview, Texas, to Arkansas-Texas state line; O. E. Dempsey Construction Co., Tulsa, Okla.—Arkansas-Texas line to Gurdon, Ark.; Anderson Bros., Tulsa—Gurdon to Little Rock, Ark.; Oklahoma Contracting Co., Dallas, Tex.—Little Rock to Missouri-Arkansas state line; C. S. Foreman Co., Kansas City, Mo.—Missouri-Arkansas line to Illmo, Mo.; Ray E. Smith Const. Co., El Dorado, Kan.—Illmo to Harrisburgh, Ill.; Sheehan Pipeline Const. Co., Tulsa—Harrisburgh to Norris City, Ill.

The Sheehan company also was awarded contracts for construction of a 14-in. branch line from Norris City to Mt. Vernon, Ind., and a 10-in. line from Norris City to Enfield, Ill. Contracts for construction of eight river crossings (Red, Little Missouri, Ouachita, Arkansas, Cache, White, St. Francis and Mississippi) were awarded to Williams Brothers of Tulsa, Okla.



N. Y. Daily News photo

New highway bridge falls in Pennsylvania flood's path

This new highway bridge, spanning the Alleghany River to carry route 101 to Port Alleghany, almost disappeared under the swollen river's waters in recent floods.

A two-span plate girder structure, each span was 120-ft. long, and cleared normal water level by 18 ft. Roadway was 26 ft. wide, with one sidewalk provided for pedestrians.

The center pier was not carried on piles, although it was carried deep into a hard bed of gravel. Rushing flood waters undermined this pier, allowing the structure to collapse. Sixteen smaller bridges also were destroyed.

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Abandonment of biggest shipyard seen part of war plant building shutdown

"Assembly line" shipbuilding plant would boost production beyond nation's capacity for steel plate, as ship program exceeds plans

Abandonment of the Higgins shipyard project in New Orleans is symptomatic of the same general situation in war production which resulted in WPB's no-more-plant policy of several months ago (*ENR* May 21, p. 831). By and large, the new war plants are proving more productive than was originally anticipated—and this includes shipyards.

Objective of the shipbuilding program is a 20,000,000-ton capacity next year. Including the Higgins yard, shipyards in production or under construction will have a capacity of more than 25,000,000 tons. This is a somewhat unexpected development. When the program was first planned a year ago, it was assumed that a production rate of six months from keel-laying to delivery could be maintained. This rate was soon exceeded.

In the last few months indeed production has speeded considerably, from an average for all yards of about 135 days (from keel laying to delivery) to an average of 105. And it is almost certain that this rate will be cut further. Some individual yards have managed to build a ship in 46 days, and some are talking about a thirty-day clip.

Such a production rate means that there isn't going to be enough steel plate available to keep all these yards busy. Rather than waste material and money on yards which probably will stand partly idle for lack of steel, the Maritime Commission is scaling down its program.

The Higgins yard was picked for the axe because it is the farthest from completion of any of the new yards that are big enough to make a difference. Work completed so far consists mostly of dredging and pile driving, and it is not believed that the yard could be in substantial production of ships until early next year.

The Higgins yard, if it had been built, would have been the largest in the country. Original cost estimates of $26,000,000 have been scaled up, by construction difficulties and changes in plan to some $60,000,000. It was scheduled to have a capacity of 200 ships a year. The yard was to have been based on a novel "assembly line" technique of shipbuilding. Details of the proposed method have been shrouded in military secrecy. It is understood however that the conventional method of laying down a keel in a shipway and building a ship around it would be abandoned. Instead ships were to be lined up, one behind another, on a long "shipway," hoisted along from station to station by large cranes as each operation is completed. As soon as the hull was in shape to float, it would be transferred to a narrow canal, along which it moves as further operations are carried out. The canal, it is understood, would require several locks.

Abandonment of the Higgins project has aroused great local protest in Louisiana, and a Congressional investigation is being started.

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Utilize WPA to speed war public works program

WPA field offices in every state will receive applications for war public works projects in a move to assist the prosecution of the program, according to Brig. Gen. Philip B. Fleming, Federal Works Administrator.

Use of the field offices will bring local communities closer to the war effort of the FWA, General Fleming said, by making it more convenient for local public officials who previously have had to transact business with widely scattered regional FWA offices. Under the new plan projects will pass from WPA offices to regional boards, and thus should be in good shape for final action when they reach Washington. The service is a further extension of plans to decentralize FWA work (*ENR* June 4, page 897).

To further speed progress of the war public works program, Assistant FWA Administrator Baird Synder has been assigned to administer all public works projects under the Lanham Act, and to supervise the seven regional directors with respect to non-Federal construction assigned to regional offices.

Other streamlining moves included: abolition of the regional engineering offices of the Office of the Chief Engineer, and a transfer of personnel, records and property to the offices of the regional directors; establishment of regional program review boards, composed of representatives of each unit of FWA, to be designated by the commissioners of each unit; creation in Washington of a program and project review board, which will advise the administrator with respect to all programs and projects of the FWA and its constituent agencies, except those to which specific authority or direction has been otherwise provided by law.

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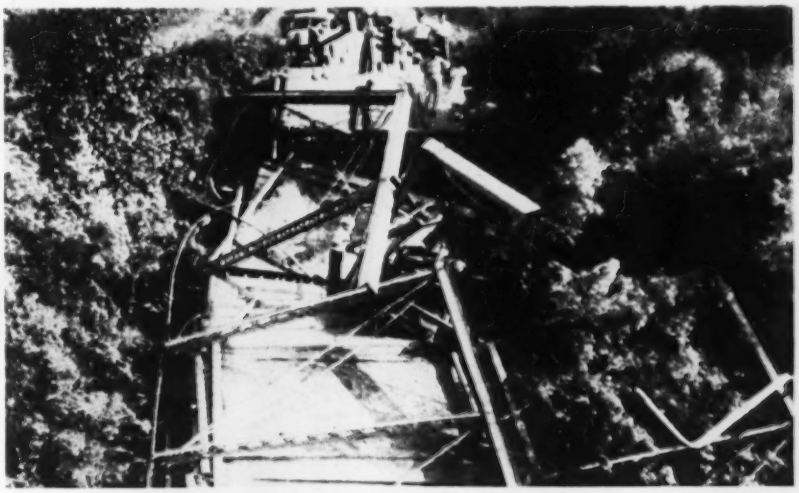
Canada cuts petroleum asphalt use for roads

An order expected to have the effect of cutting out the use of road oils and asphalts for all ordinary highway work in Canada, and of reducing drastically the use of asphalt for such building products as shingles and roofing paper, was issued recently by C. R. Cottrelle, oil controller for Canada.

Issued under the authority of the Minister of Munitions and Supplies, the order prohibits use of petroleum asphalt in Canada for other than war purposes.

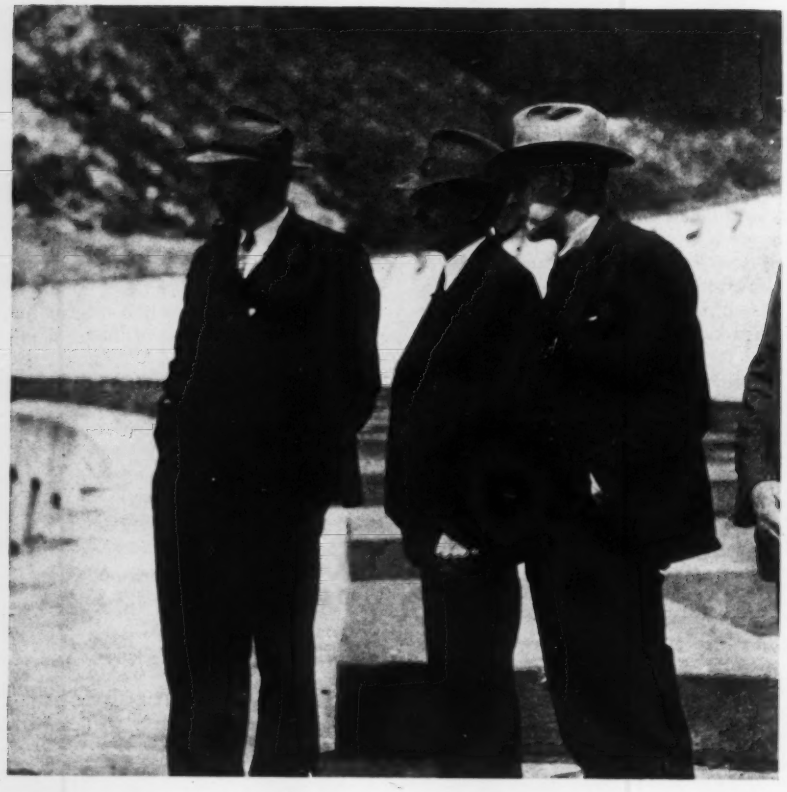


Blow by careening auto wrecks Iowa highway bridge

When a car skidded and crashed into the south end of this 90-foot steel bridge over the Fox River near Bloomfield, Iowa, recently, the whole structure collapsed and fell 30 ft. into the stream bed.

County highway officials believe that the impact of the machine against the bridge members snapped the pin in the first panel point in the lower chord, causing the entire structure to collapse.

MEN AT WORK



Before WPB would grant priority rating for the raising of Seattle's Ross Dam, the job had to be stamped with approval by Federal Power Commission engineers. Here three of them are photographed atop the dam. Left to right: JOHN S. COTTON, senior engineer, San Francisco office; E. C. BEBB, principal engineer from Washington headquarters; and J. C. BEEBE, chief of the FPC bureau of water power.

E. R. HOFFMAN, superintendent of the Seattle department of lighting, stands on top of Ross Dam, which he is planning to raise an additional 145 ft. to increase Seattle's hydro power output. When the picture was taken, Supt. Hoffman was host to Federal Power Commission engineers (picture at left), who were examining the structure preliminary to granting a federal permit for the work to go ahead.

Among those responsible for the rapid construction carried out on an eastern embarkation camp includes this group. At the left is JOHN A. F. JOHNSON, project executive for the general contractors, a firm made up of John A. Johnson Contracting Corp. and Andrew Christensen and Son, Inc., New York. The others, left to right, are: MAJ. C. L. BUCKNUM, area engineer for the U. S. Engineers, C. G. COUNTISS, project manager for the contractors, and HAROLD CHRISTENSEN, administrative executive for the builders.

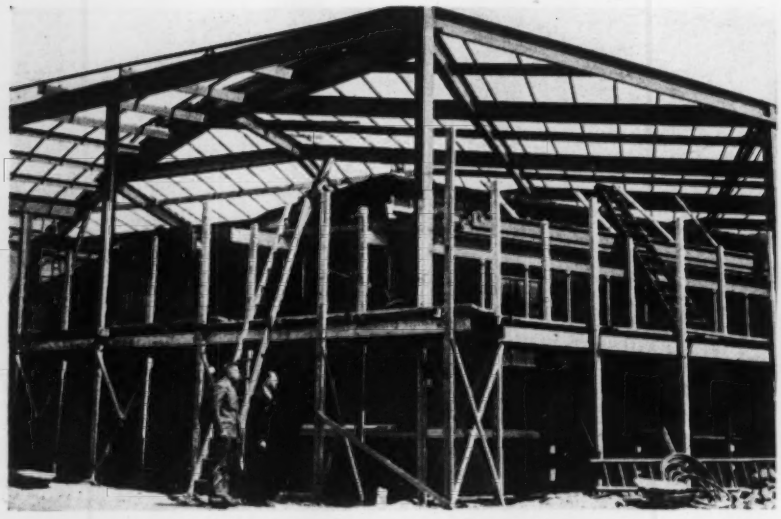
On a 5,000 unit demountable housing development at Portsmouth, Va., where the schedule is 70 homes per day, RUBE WILLIAMS, left, is shop foreman and S. A. BROWN is field superintendent for Barrett & Hilp, contractors on the $15,,000,000 defense project.

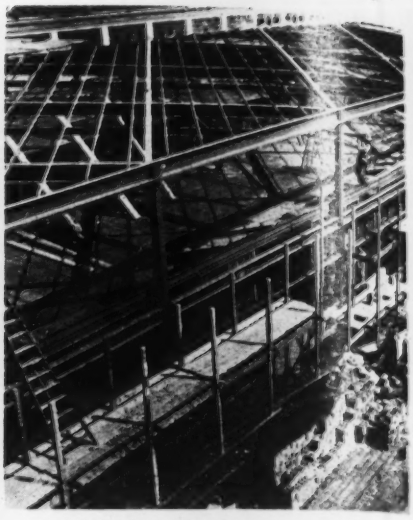
Six ordnance plant engineers associated with Holabird & Root, Chicago, in building a project in Ohio gather for a conference. Seated, left to right, are E. P. BABCOCK, VERNE O. McCLURG, JOE BURGEE and ARTHUR BREWER. Standing are A. E. FORTE and PROF. W. A. OLIVER of Illinois University.

EMMONS W. DEBERARD, resisdent engineer for Greeley & Hansen, on the Centralia, Ill., waterworks project. A graduate of the University of Illinois in 1931, he is the son of Chicago's City Engineer, W. W. DERBERARD.

Enlargement of the existing treatment plant of the city waterworks system at Oklahoma City, Okla., gets the attention of M. B. CUNNINGHAM, chief engineer and superintendent of the waterworks. Mr. Cunningham has held that position since 1936, and was assistant chief engineer from 1922 to 1936, having been with the department since 1920.

In charge of two sections of the Tulsa, Okla., district office of the U. S. Engineers, the two above are prominent members of the civilian group. EDWIN C. FRAZEN (left) is in charge of the design section, and DONOVAN P. GROSSHANS is in charge of the engineering sections.





Steel requirements cut through use of special roof framing

Application of "Diagrid" construction technique made possible by recent developments in electrical arc-welding has cut steel requirements 30 percent in erection of a new laboratory for the Westinghouse Electric Co.

To save time and expense of moving valuable experimental apparatus to another location during construction, framework for the new building was erected around the frame structure it replaces. Laboratory work continued during all of the various construction operations.

The "Diagrid" technique, described in Engineering News-Record May 25, 1939 p. 721 and Jan. 1, 1942 p. 16, utilizes a series of diagonal steel beams, welded into a diamond-grid pattern to form a continuous rigid framework. The beams intersect at 90 deg. angles and are rigidly welded at the junctions. The technique eliminates heavy lattice girders and trusses, and reduces the necessary thickness of the steel beams.

Additional advantages claimed for the "Diagrid" construction are that the steel framework is in the same plane as the ceiling, making possible installation of tall machinery; elimination of much steel framework makes for better ventilation and light distribution, and reduction in steel surface area cuts painting and maintenance costs.

Lincoln Tunnel work falls behind schedule

Problems of obtaining needed materials, principally steel shapes, have slowed construction of the north tube of the Lincoln Tunnel in New York City by about four months. The south tube, carrying traffic in two directions, was opened in 1937. For a description of the dedication and opening of the first tube (see *ENR*, Dec. 7, 1937, page 1040).

When work was resumed on the tube in April, 1941, the schedule provided for opening to traffic within two years. Current estimates are that the bore will be opened formally on or about Labor Day, 1943.

The Port of New York Authority said that the last steel shapes and plates required are to be rolled this month. All other priority problems have been solved, with the exception of those relating to needed copper cables.

The Authority pointed out that its revenues will not decline because of the delay in completion of the second tunnel connecting New York City with Weehawken, N. J. Work was resumed on the north tunnel about four years ago. However, since gas rationing was introduced and the rubber crisis arose, traffic in the south tube has tended to recede and no need is seen to take extraordinary measures to rush the new tunnel to completion.

Pennsylvania reports on 1941 highway work

The Pennsylvania Department of Highways improved 2,190 miles of road on the state highway system during the fiscal year ended May 31, according to a recent survey.

During the past three fiscal years department records showed 6,539 miles of road improved as compared with 5,305 miles in the previous four years. The increase in mileage of road improvements completed in the last fiscal year was accomplished largely through construction finished under contract and also by the department's own forces.

There were 691 miles of new construction finished last fiscal year, as compared with 214 in the previous twelve months. Also completed were 469 miles of reconstruction, and 252 miles of resurfacing, reclamation and widening.

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States study effect of PRA material control

Just how the extension of the Public Roads Administration's control over the use of bituminous material (*ENR*, July 9, p. 68) to most of the Midwest will affect road programs was a cause for serious study last week by state highway department officials of states newly included in the control area.

Representatives of the highway departments of Illinois, Indiana, Kentucky and Michigan met last week at Chicago to discuss the matter with J. T. Voshell, district engineer for the PRA. The group discussed methods of procedure to obtain PRA certification for materials on needed roads.

Several major Wisconsin highway projects may have to be abondoned because of the restrictions on the use of materials. William E. O'Brien, chairman of the state highway commission said. In the city of Milwaukee itself, at least one major street repair job will have to be abandoned, city officials believe, and county officials at Milwaukee they too were short owing to a policy of keeping only small stocks on hand and depending on freight car deliveries for immediate use of materials.

Interruption of a large part of the Ohio state highway department's current $4,000,000 program of road resurfacing was foreseen in the order. The Ohio department had contemplated its most extensive program of resurfacing in its history, to involve 587 miles of road.

The Pennsylvania highway department announced it had been assured of only a quarter of the materials it would require to carry out necessary maintenance and repair work for more than 35,000 miles of improved road in the system. The

year's needs were estimated at about 33,250,000 gallons of tar and asphalt. So far, the department has received slightly more than 2,000,000 gallons and has obtained certificates of necessity for only 5,460,000 gallons in addition.

The North Carolina state highway commission said it had been alloted an additional 700,000 gallons of asphalt for patching and retreating highways, having already used up its original allotment of 1,500,000 gallons. The state had planned to use 15,000,000 gallons during the year.

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Rail salvage tangle knots southern project

Despite the war and the WPB, the city of Charlotte, N. C., will take its own time and its own methods in salvaging some 2,000 tons of steel street car rails buried under its streets, it became apparent last week.

The city, with WPB approval, plans to salvage the rails as part of the nation's drive for scrap steel. However, when George Robertson, director of special projects of the salvage section for the War Production Board, appeared in Charlotte last week to ask immediate action, it developed that, first, no one knew exactly who owns the tracks; second, that since the track crosses seven state highways, state approval will have to be granted; and, third, that since the WPB offer to remove the rails by WPA labor included only removing the tracks, no one had decided what to do about cross-ties which would be left in the pavement.

City Manager Flack said the municipality is anxious to donate the rails, but will take its own time and its own method to do the job.

Kansas City organizes for war emergencies

Despite its remoteness from the country's borders, Kansas City, Mo., has lost no time in setting up a civilian defense organization, an important element of which is a public works division, staffed both by city public works department employees and by representatives of key industries. Avoiding any concern with the so-called prevention phases of civilian defense, this public works division will confine its work to the strictly clean-up activities after a disaster occurs. How it is set up to cope with this assignment is shown in the accompanying chart.

Policy making is in the hands of an advisory committee composed of city officials and officers of key industries in the city, while direction of the division is entrusted to an administrative group composed of four commissioners, one of whom is the city director of public works, Arthur C. Everham. Each of the commissioners is of equal authority, the theory being that one will thus always be available immediately, to take charge until an incident is disposed of.

All of the subordinate groups are staffed or headed by regular employees of the city public works department. To keep the necessary records of personnel, purchases, etc., it was decided to use regular public works employees so that they would be subject to direct line of authority. The same theory was applied to the selection of administrative assistants and to the chiefs of the eleven special sections. The past experience and regular work of these section heads also fit them for the jobs assigned to them. The others of the special section personnel are representatives of various phases of private industry, and are likewise experienced.

Selective service listing seen aid to industry

Inclusion of most types of construction on the list of industries recognized by the Selective Service Board as essential to the war effort will aid construction contractors and engineers in holding their staffs together. It affects two situations. Men occupying "critical occupations" in construction are likely to get occupational deferment, regardless of whether they have dependents. A "critical occupation" is one that requires a degree of skill or training and in which the man cannot be replaced because there is a shortage of men with the required skill.

Men in non-critical construction occupations are not entitled to occupational deferment. But they will be called after men with the same marital status but who are in non-essential industries. Thus a married construction man with no children would be called later than a married soda dispenser with no children.

The types of construction considered essential are: Highway and streets; marine work; and operations concerned with the erection of approved industrial plants, houses, hospitals, and military projects and repair of such facilities.

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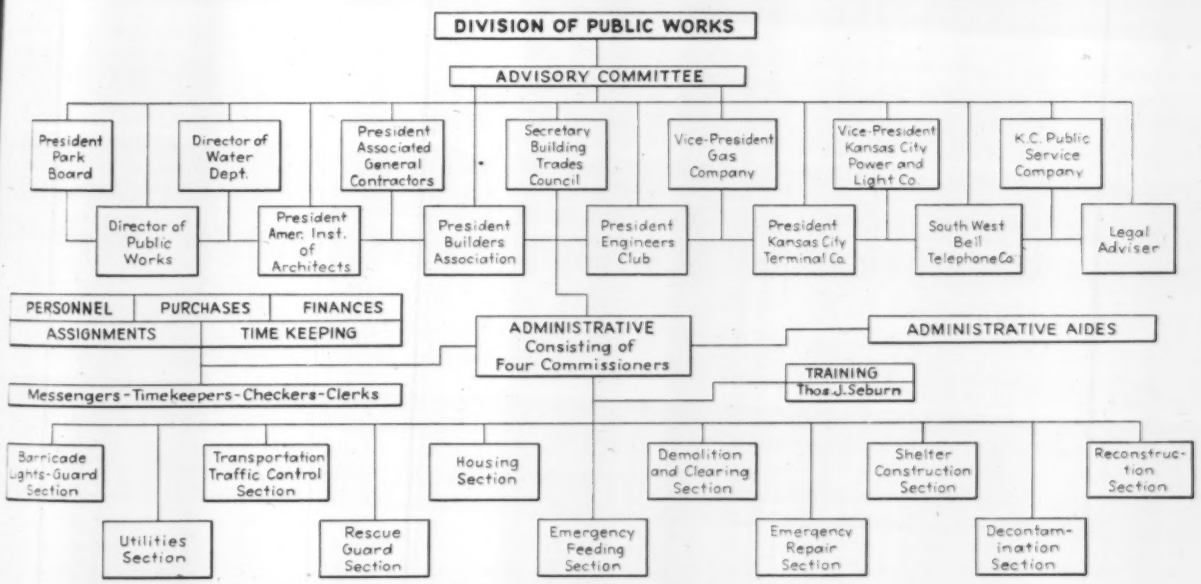
Complete 6,368 federal-aid highways in 1942

Despite wartime restrictions, 6,368 miles of federal-aid highway projects were completed during the fiscal year as of May 31st, according to the Public Roads Administration.

The projects cost $188,253,089.



MEN AND JOBS

Leon Adams, superintendent of equipment for the Public Roads Administration in Montana, has been assigned to the Alaskan highway project to take charge of equipment on a 900-mile section of that road.

Robert C. Berry is project supervisor for the construction of a commercial and military airport between Rockingham and Hamlet, N. C.

Walter B. Jones, former state conservation director for Alabama, has joined defense forces as a lieutenant colonel in the Corps of Engineers. He is succeeded in his civil position by **Albert Gill,** of Mobile.

Lieut. Col. Albert J. Bain, former utilities officer, has been appointed post engineer at Fort Benning, Ga.

Elbert B. Bruce, formerly an assistant division engineer for the Alabama state highway department, has returned on furlough after an extended tour of duty with the Corps of Engineers.

Cecil D. Kinder, Garfield county, Wash., engineer, has resigned to accept a Civil Service position.

C. Grattan Clavin has been named a research and development engineer on the staff of the Denison Engineering Co., of Columbus, Ohio.

Samuel S. Baxter, assistant director of public works for Philadelphia, Pa., has been granted a leave of absence to join the Corps of Engineers.

Joseph E. Vollmar, president of the Fruin-Colnon Contracting Co. of Chicago, has been commissioned a colonel in the Corps of Engineers for foreign duty.

Thomas P. Cunningham, for the past two years principal assistant engineer, has been named engineer in charge of the Queens, (N. Y.) Topographical Bureau, replacing Charles U. Powell, who retired recently. Mr. Cunningham has been a member of the staff of the bureau for 35 years.

B. A. Poole, chief sanitary engineer for the Indiana State Board of Health at Indianapolis, received the George Warren Fuller award at the recent American Water Works Association meeting in Chicago.

F. C. Dugan, formerly director of the Bureau of Sanitary Engineering for the Kentucky Department of Health, has been called to active service as a major in the Corps of Engineers. **R. R. Harris** has become acting director of the bureau.

Ray Andrew Seaton, dean of the school of engineering and architecture at Kansas State College, was recently awarded the Lamme medal for achievement in engineering education at the 50th annual dinner of the Society for the Promotion of Engineering Education held in New York City.

J. W. Ellms, commissioner of sewage disposal for the City of Cleveland, Ohio, has received the honorary degree of sanitary engineer from the Case School of Applied Science at Cleveland, Ohio.

Capt. George Bock, area engineer in Fort Worth for the Denison district, U. S. Engineers, has been promoted to the rank of major. Other Denison district promotions include: **Capt. Clinton Harvey,** head of priorities, equipment and materials section, to major; **1st Lt. Samuel C. Roberts** to captain, and **1st Lt. Robert F. Long,** area engineer at Gainesville, to captain.

Arthur Surveyor, Montreal engineer, has been appointed consulting engineer to the Shawinigan Water & Power Co., Ltd. and its subsidiaries.

Frank E. Englar, Fort Pierce, Fla., civil engineer, has accepted a post with the Baker Construction Co. of Mobile, Ala., and is now engaged in defense work at Miami, Fla.

Capt. Everett L. Bailey has succeeded **Maj. Charles E. Kennedy** as area engineer in construction of an air base near Topeka, Kans.

Jack Singleton, for the past 15 years district engineer for the American Institute of Steel Construction at Topeka, Kansas, has been granted a leave of absence to enter the Corps of Engineers with the rank of major.

B. E. Harris, who served as assistant project manager and chief project engineer in designing and equipping of the loading lines of the Arkansas Ordnance plant near Little Rock, has been named project manager of production.

Eugene E. McCracken, county engineer for Shawnee County, Kans. has been appointed engineer for the North Topeka Drainage Board.

A. M. Sherman has been named chief operating engineer at the Independence, Mo., Municipal Light and Power plant.

F. W. Pickworth, Sioux City, Ia., sanitary engineer, has been commissioned a first lieutenant in the Army Sanitary Corps.

H. W. Wagner, chief engineer for the Santa Fe Railroad Co.'s eastern division at Topeka, Kans., retired recently.

Goodman B. Espy, Jr., formerly an assistant engineer (civil) with the U. S. Engineers at Mobile, Ala., has been ordered to active duty with the Corps of Engineers with the rank of first lieutenant.

Harry Stevens, city engineer for Clay Center, Kans., has resigned to accept a position with Burns & McDonnell Engineering Co. of Kansas City, Mo.

Norman R. Sack, bridge engineer for the Missouri State Highway Department, has been assigned as project engineer with Sverdrup & Parcel Co. on a project in Northern Canada.

Maj. Albert E. Stoltz has succeeded **Maj. Wayne O. Hauck** as Engineer in charge of construction of the Badger Ordnance plant in Wisconsin.

Lieut. W. L. Boland has been appointed area engineer for construction of an airfield in western Kansas.

Lieut. F. H. Falkner, who has been in charge of the Huntington (W. Va.) district, U. S. Engineers, since July, 1940, has reported for active service with troops. He has been succeeded by **Lieut.-Col. W. A. Higgins,** formerly district engineer at Los Angeles.

F. C. Vierck, assistant engineer for the Farm Security Administration of Lincoln, Nebr., has been named district FSA engineer in Arkansas, Louisiana and Mississippi.

G. A. Draper, engineer in the Mississippi State Highway Department, has been commissioned a major in the Corps of Engineers.

Clarence Blue, Springfield, Minn., engineer, has taken a post as assistant construction engineer on a federal project in South Dakota.

Charles Chaney, engineer with the Montana State Highway Commission for the past twelve years, has resigned to join the Corps of Engineers.

M. E. Chamberlain, city engineer of Montevideo, Minn., has been granted a leave of absence to take engineering work on a defense project in Montana.

Expand storage space in Minneapolis barge terminal

Precast concrete cribbing has been used as a retaining wall on a WPA project to increase the cool storage facilities of the Minneapolis municipal barge terminal on the Mississippi River. The improvement adds 106,000 sq.ft. of storage space and increases the total available space at this large river port, more than 284,000 sq. ft.

Survey shows industrial construction uptrend

New industrial construction, needed to meet requirements of the national war program, is the leading factor in a marked improvement in real estate conditions over 1941, according to a report released last week by the National Association of Real Estate Boards.

Of 301 cities surveyed in various parts of the country, 59 percent reported some new industrial construction during the year, while in the areas definitely designated as defense zones, 67 percent of the cities reported new industrial building activity.

The report made no prediction as to how long this trend might be expected to continue, in view of the recent War Production Board orders curtailing new plant construction (*ENR*, June 4, p. 896).

Tallying very closely with *Engineering News-Record's* construction trends report scheduled to appear in the issue of July 30, the report said that Northwestern States—including Washington, Oregon, Montana, Idaho and Wyoming—led in distribution of industrial construction work. In this area, 75 percent of reporting cities noted new building or plant additions.

The Great Lakes region—including Illinois, Ohio, Michigan, Indiana and Kentucky—was second in volume, with 74 percent of its cities reporting new work of this character.

In the Southeast region, additional industrial construction was reported in 64 percent of the cities—in the Central Atlantic and North Central regions, 57 percent—in New England, 47 percent, and in the South Central region, 46 percent.

The survey calls attention to the fact that the larger the city, the greater apparently is the opportunity for new construction. New building of this type was found in 78 percent of the cities exceeding 500,000 population; in 74 percent of the cities in the 100,000 to 500,000 population range; in 65 percent of those from 25,000 to 100,000, and in 40 percent of the cities, with population of less than 25,000.

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Survey of Jacksonville, Fla., water system

A complete survey to determine adequacy of the Jacksonville, Fla., city water system with an eye toward the possibility of supplying the city with soft water, started last week under direction of Charles H. Pohl, New York consulting engineer.

Utilities Commissioner George A. Pierce of Jacksonville said results of the survey would determine whether the city must plan on enlarging present supply and distribution system, and would also be used as the basis for future plans to obtain such an enlarged supply.

Mr. Pohl, president of the consulting firm of Bogart and Pohl of New York, will be associated in the survey with Burns and Roe, Inc., which holds a contract with the city for the work. Cost of the work is not to exceed $10,000. Well known as a consultant, Mr. Pohl was connected with the design and construction of the New York State Barge Canal, survey work on the Great Lakes, among many other jobs.

New type construction reported on air plant

Utilizing what was said to be a new method of construction, known as "Warspeed"—the Wright Aeronautical Co. last week announced construction of a new plant was under way "somewhere in New Jersey."

Although details of construction were said to be restricted by military necessity, the aircraft engine manufacturing company said the new building is being built "from the roof down," with floors and walls being the final units to be finished. The building is to be a single story structure, with reinforced concrete columns and roof, but unreinforced floors. The construction method was worked out by company engineers and Albert Kahn, widely-known war plant architect. Use of this method is expected to save $500,000 in construction costs, and saving of enough steel to build a cruiser.

Myron B. Gordon, vice president and general manager of the company, said the same method is being used in expanding his organization's western plants.

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Army studies plans for Anacostia River bridge

Plans for a proposed $3,500,000 bridge over the Anacostia River at South Capitol street in Washington, D. C., are under consideration of the Army's Corps of Engineers, after public hearings last week.

Originally proposed before Dec. 7, the bridge is now considered to be a postwar project. An appropriation of $1,000,000 is available to start construction, but current materials scarcities are such that immediate construction apparently is not possible.

The bridge would be a seven-span highway structure with two swing drawspans, with 150-ft. openings providing a 45-ft. clearance at mean high tide. Piers would be stone and superstructure would be steel.

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Seattle discusses plans for new street viaduct

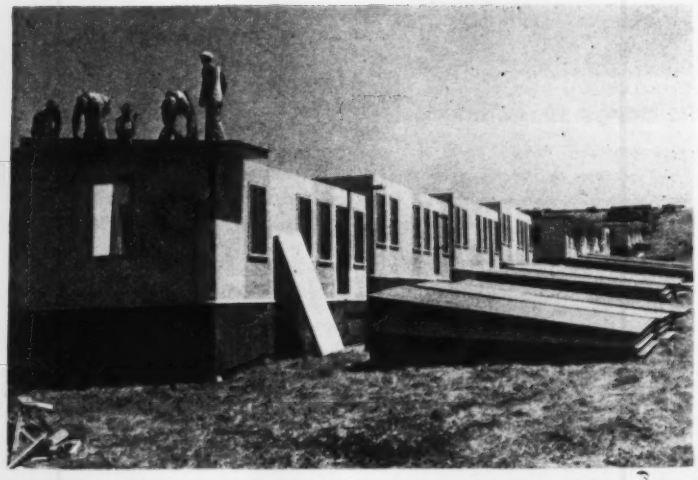
The city council of Seattle, Wash., met in special sessions last week to discuss problems connected with planned construction of a new viaduct over Spokane Street, in the city's heart, to help relieve traffic congestion.

As preliminary to the viaduct work, the city already set aside $105,000 to pay for tearing up car tracks, remove brick pavement and resurface Spokane Street between Atlantic Street and Denny Way. Supports for the structure have already been installed, and in their present condition contribute to general congestion.

Building 40 Houses a Day

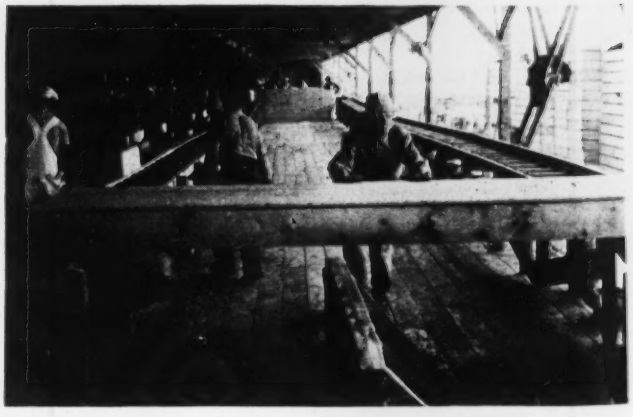
By making prefabricated parts during the time between "notice of intention" and "order to proceed," a San Francisco contractor was able to construct 1,000 demountable homes for defense workers near the Mare Island Navy Yard in less than one third the time stipulated in the contract with the Federal Public Housing Authority. Specifications called for the demountable feature so that after the need for facilities in this location has passed, the structures can be taken down and moved elsewhere. This fitted in well with the plan for panel-type prefabrication so that only a few standard sizes for floor, wall and roof units would suffice for the entire group of houses. This was possible despite the fact that the houses differed somewhat in floor plan and arrangement.

A large prefabrication mill (148x96 ft.) was set up near the site and in this a sufficient number of panels for the entire project were made up in advance. A high rate of speed was maintained by providing jigs on which the precut pieces had merely to be put together as a frame on which plywood sheets were fastened, with nails and glue, to both faces. Inside plywood sheets are ¼ in. thick, outside, sheets ⅜ in., and weatherproofed. Roller conveyors moved the panels, chiefly by gravity, to stock piles whence they were trucked to the job as needed.



At the site, panels were kept on hand in advance of assembly needs; the 2-ft. projection of the roof panel forming the eaves.

The batts used for insulation were laid in between the cross headers of the ceiling panel and fastened there by being nailed in place with Bostich stapling hammers.



Completed floor sections were moved along a roller conveyor by hand toward a gravity conveyor to the stock piles.

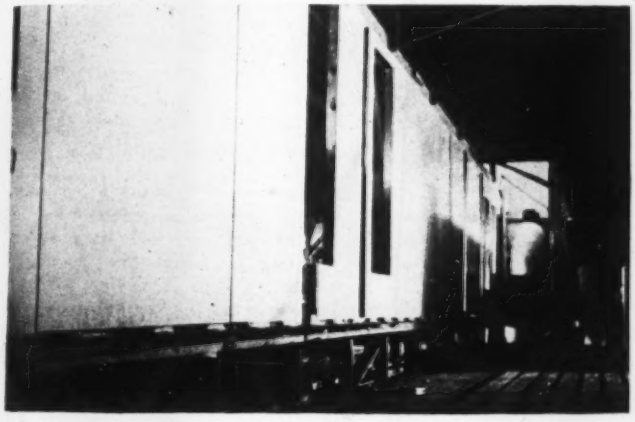
In the erection program, each crew had one operation to perform and moved over the work progressively thus facilitating a speed of progress that at the height of the job turned out finished houses at the rate of 40 per day.

After the work was started, it was found that the bathtubs on order could not be obtained because materials had been diverted to war work. Plans were changed slightly and bathtubs were made on the job by using a rectangular design in which lightweight concrete was used for the supporting frame, and the surfaces exposed to water were all finished with standard glazed tile. Thus no critical materials were used other than a relatively small amount of wire mesh for reinforcing.

The general contract held by Robert McCarthy of San Francisco amounted to about $2,000,000. The fabricating mill was designed and constructed with the purpose of operating it after the completion of this particular job to supply prefabricated units for other housing projects.

General features of the project and the design of houses were developed by Franklin & Kump and William Wilson Wurster, associated architects.

In the panel assembly (above), a Laucks glue gun was used to apply the adhesive to frame and cross headers before the plywood was put on.



The conveyor (at top left) was made long enough so that by the time the panels reached the end of the line, the paint was dry enough to be handled.

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At the end of the paint conveyor (lower left), panels were laid on a gravity conveyor to roll out to the stock pile.

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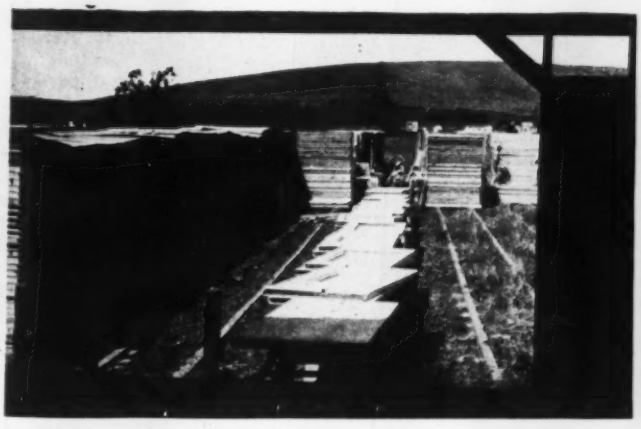
Bathtubs, with tiles put on first against a form, were cast upside down and later turned over for finishing the tile joints with white waterproof (Golco) grout.



BRIEF NEWS

EMPLOYEES of the engineering branch of the Office of Indian Affairs have moved to new offices in the Merchandise Mart, Chicago, Ill., as a part of a long time program of moving some governmental offices away from over-crowded Washington, D. C.

CONTRACTORS recently began work on a cofferdam to divert the flow of the Red River through the outlet works of Denison Dam, near Denison, Texas. This construction is preparatory to starting work on the final section of the dam's main embankment.

THE Oklahoma State Highway Commission will have more than $11,000,000 in federal funds on hand for road construction during the next fiscal year, but wartime difficulties will leave a large unexpended balance, according to Van T. Moon, state highway engineer. The state has made no decision as to use of the surplus funds.

A TOTAL of $17,500,000 in war risk insurance has been placed on the seven Multnomah County, Ore., bridges over the Willamette River.

PRELIMINARY plans for organization of Oregon State Highway Department engineers into an emergency unit charged with blocking roads and highways in the event of enemy invasion were drawn up at a meeting at Salem recently. The engineers will be organized as a company of the state guard, it was decided tentatively.

AN $840,000 drop in maintenance expenses of the Pennsylvania Department of Highways, despite rising cost of labor and materials, has been reported by Secretary I. Lamont Hughes.

THE $3,000,000 building program of the Tennessee Department of Institutions is virtually completed, according to Commissioner W. O. Baird. The program has included construction of fourteen hospitals, dormitories and other structures.

EXCAVATION work to remove about 30,000 cu. yd. of earth as a preliminary to a $3,000,000 steam plant expansion program of the Arkansas Power & Light Co. at its Pine Bluff, Ark., plant.

ENGINEERS, administrative executives and salvage officials of major railroads operating in the Dallas, Texas, area met recently for discussion of ways of removal of an estimated 40,000,000 lineal feet of rails no longer in use, and for placing other scrap metal in the war effort.

Plan camouflage course for industry protection

At the request of the Office of Civilian Defense, and with the approval of the U. S. Army Engineer Board, the College of Engineering of New York University will open a five-week course in industrial camouflage on August 3rd.

The course is designed to meet the needs for trained personnel in this field, and will be open to architects, engineers, landscape architects, industrial designers, and other properly qualified professional people.

The series is based upon the training program of the Camouflage School at Fort Belvoir, Virginia, and those who successfully complete the course will be qualified to prepare plans in accordance with principles established and approved by the OCD and the Engineer Board.

Emphasis will be directed toward protection of municipal and public utilities.

Speeding the War Effort:

Bending every possible effort toward strengthening America's war program, engineers and constructors throughout the nation are advancing new production ideas, new methods of doing their jobs, finding new sources and uses for critical materials. Some of the results last week were:

The U. S. Maritime Commission released a report highly praising America's answer to the submarine menace—the Liberty Ship—publishing performance records to show that in efficiency and economy of operation the ship has more than justified authorizations already made to build nearly 1,600 by the end of 1943.

More than 150 had been put in service by July 1. The first was the Patrick Henry, delivered Dec. 31, 1941. On a recent voyage, the ship steamed a distance of 7,633 miles at an average speed of 11.6 knots. For most of the trip she carried a useful load of 11,028 long tons, and after a stopover a useful load of 10,898 long tons. Oil consumption amounted to 193 and 194 barrels per day, respectively. The pounds of oil burned, per useful load ton mile, was an even 0.022.

For comparison, the Commission checked the logs of two ships built at Hog Island in 1920, which showed a consumption of 0.033 lb. of oil per useful load ton mile.

"Conclusively," the Commission reports, "the Patrick Henry is a better ship. With a cargo capacity greater by 1,400 to 3,500 useful load tons than her predecessors, she attains a speed from one to three knots faster under comparable sea and weather conditions. As a fuel-saver, she also shows a marked superiority.

The largest individual contribution to the scrap metal drive in the New York area was made recently by the New York Central Railroad, which presented the industrial conservation bureau of WPB with four bridges, weighing a total of 2,564,000 lb. The bridges spanned waterways no longer crossed by the railroad.

In Little Rock, Ark., a 300-ft. steel bridge across the Ouachita River, already earmarked for the war effort, recently was blown from its foundations by a demolition squad of Army Engineers in a practice exercise. Donated by a lumber company that used the bridge for a logging tram, the structure has long been unused.

The search for strategic minerals and other materials needed for the war effort continued apace, with the announcement that the U. S. Bureau of Mines is making an extensive survey of potential helium gas areas in the Texas Panhandle and other parts of the state. Additionally, plans are being made for the construction of a helium producing plant in Texas at an estimated cost of not less than $4,000,000.

The North Carolina Highway and Public Works Commission, continuing its scrap rubber drive, reported 308,000 pounds gathered from its shops throughout the state.

Moving toward breaking a bottleneck of serious concern to waterworks and sewage disposal plant operators, as well as to other industries, the Service of Supply of the U. S. Army last week announced that the production of chlorine has been greatly stepped up in the past twelve months in both government and commercial plants.

Educational activities to train technical assistants for war-time emergencies also went forward last week, among developments on this front, being the announcement that 99 men, drilled in the responsibilities of protecting plant facilities, have been graduated from a public safety service school conducted by the Tennessee Valley Authority at Knoxville. This was the second group so instructed at the TVA's central school at Norris. The men are trained to coordinate their work with the Coast Guard and the Federal Bureau of Investigation. A third course for 100 men began on July 22.

The Alabama State Highway Department said that about 550 persons have completed 12-week classes of intensive engineering training courses conducted in cooperation with the Alabama Polytechnic Institute at Auburn.

Survey shows general gasoline tax decline

The accelerated decline in state gasoline tax revenues was visible last week in a state-by-state report on motor fuel tax receipts for the first five months of 1942, compiled by the Federation of Tax Administrators.

On a national basis, May motor fuel tax collections were 9 per cent under May, 1941, receipts; for the 17 eastern "rationed" states, gas tax yields fell 14 per cent under May, 1941.

That the decline is accelerating, especially in rationed states, is indicated by June figures for 13 states—including four rationed states of Florida, Georgia, North Carolina and Virginia. Average drop in collections for the 13 states was 15 per cent; average reduction for the four rationed states, 23 per cent. Taking collection figures for the 17 rationed states alone, receipts for February, March, April and May (all collection figures for one month represent taxes on sales of the preceding month) of this year—$106,000,000—were nearly $6,000,000 under 1941 collections of $112,000,000. Collections for four states reporting for June were more than $2,000,000 below June, 1941.

$90,000,000 loss seen

While monthly declines in revenues may appear small in comparison to the record $965,000,000 of motor fuel taxes collected by the states in 1941, nearly $90,000,000 would be cut from this record total if the national average decline should be 9 per cent for the year. The decline is more striking if the national averages for January and February, 1942, are compared with averages for the same months of 1941. January collections were up 16 per cent, and February collections up 8 per cent, from averages of January and February, 1941. However, by March, the turning point for motor fuel tax collections, a decline of 2 per cent from the 1941 level was reported; by April the decrease amounted to 4 per cent and in May receipts were 9 per cent lower than in May, 1941.

This condition, the federation said, may help to explain why state tax officials were hesitant during the first two or three months of the year to budget anticipated motor fuel and other tax revenues that might be affected to a great degree by wartime conditions.

As yet, according to the survey, none of the states reporting had under consideration specific legislation designed to replace declining motor fuel tax receipts with other forms of tax revenue. Up to the present, decreases have been paralleled by curtailment of new construction under War Production Board orders.

Report sharp traffic drop on New York bridges

Traffic on the five bridges operated in New York City by the Triborough Bridge Authority dropped 25 percent in the first six months of 1942, as compared to the same period in 1941, it was pointed out in a recent half-yearly report by the authority. However, it was noted that present rate of earnings is sufficient to meet all obligations, including interest and amortization of outstanding bonds.

The authority operates the Bronx-Whitestone, Triborough, Henry Hudson, Cross Bay Parkway and Marine Parkway bridges.

During the first six months of 1942, average monthly toll traffic over the five structures was 2,180,000 vehicles, yielding an average monthly income of about $400,000, and a yearly revenue of $2,391,422.

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Houston plans dam, canals for industrial water

Officials of the San Jacinto River Conservation and Reclamation District at Houston, Texas, reported last week that work will start Aug. 10 on a $5,750,000 project to provide more water for industries along the Houston Ship Channel.

The district has $200,000 on hand with which to begin operations, and has asked for an FWA grant of $2,000,000 and a loan of $3,000,000 to be repaid out of water revenues.

C. R. Scott of Houston, district secretary, said the district has been assured of approval of the loan and grant.

Contemplated is construction of an earth dam on the San Jacinto 25 miles northeast of Houston to store 100,000,000 gal. of water and a system of canals to carry the stored water to the ship channel.

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Eastern Kentucky suffers heavy flood damage

Rainstorms that centered over Letcher and Perry Counties, Ky., last week caused floods in the eastern section of the state, damaging highways, railroad installations, small homes and buildings, and caused several deaths. Rainfall at Jenkins was measured at 3.75 in., and at Hazard 2.38 in., within 24 hours. Portions of Knott, Harlan, Pike and Floyd Counties also were affected.

Main tracks of the Louisville & Nashville Railroad's eastern Kentucky division between Winchester and McRoberts were blocked by a house washed across them, and slag blocked other portions of the track. Bus service between Hazard and Jenkins, Lexington and Hindman was halted because of water over roadways, and considerable damage was done to property of the Consolidation Coal Co. at McRoberts.

Several main highways were blocked for hours by landslides and water on the roadways, and the State Highway Department at Frankford issued warnings for motorists to exercise extreme care in driving in that section of the state.

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Army organizes Engineer Amphibian Command

U. S. Army officers recently began enlistments for a newly formed command—the Engineering Amphibian Command—which may have duties of landing troops and preparing facilities at the port of landing.

Eligible to enlist are men between the ages of 18 and 52 who have executive ability, experienced in command for the technical knowledge, to enable a candidate to take charge of, or command, repair units in one of the maintenance regiments, or to pilot and lead boat groups and instruct others in boat handling and maintenance of boat units.

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Diversion of Pan-American road work to mines urged

Diversion of the Mexican government's efforts to complete sections of the Pan-American Highway in the southern part of that country to construction of vital communications for mining areas, has been urged by the Mining Chamber of Mexico.

While admitting the strategic importance of the highway and other roads being built by the Ministry of Communications and Public Works, the chamber pointed out that roads for mining zones are imperative to insure swift deliveries of badly-needed zinc, copper, lead, and other metals.

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New England Water Works group to meet at Boston

In compliance with requests of the Office of Defense Transportation, the annual convention of the New England Water Works Association, previously scheduled to be held at Poland Springs, Maine, has been cancelled, and will be held at Boston, Mass., Sept. 15 and 16.

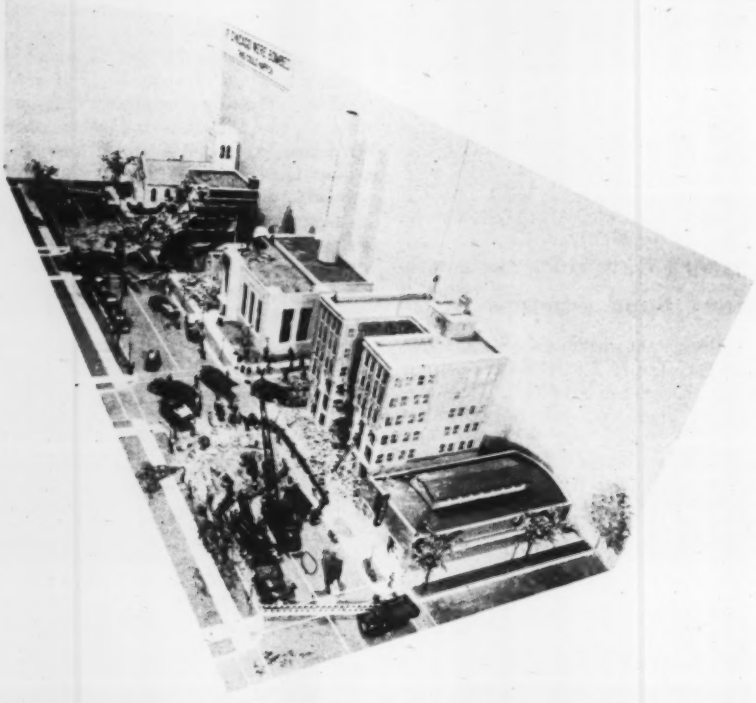
The coordination committee has published a request that there be no exhibits of equipment or public display of literature or magazines at this meeting.

Chicago model shows what might "happen here"

Repairs under way at the pumping station, one corner of which received a direct hit. A construction division crane is removing the wrecked steel work so repairs can be rushed on the steam-driven pump.

Scale model of three city blocks showing damage and resulting repairs to bomb wrecked water supply facilities.

Copelin photos



A vivid picture of the destruction and disruption to a city's water supply resulting from air raid bombing, and how the damage can be repaired in a minimum of working time is conveyed by a table model of three wrecked city blocks prepared by the Chicago department of public works. The model was on display at the recent convention of the American Water Works Association in Chicago.

Three city blocks extending along a boulevard are shown in scale detail. Shown are results of bomb explosions on vulnerable points of the water system. Placing of the equipment and personnel indicates how the repair organization in the bureau of engineering has prepared itself to cope with such emergencies.

It is assumed that three bombs have been dropped, each striking and wrecking vital parts of the water supply; two have blown large holes in the boulevard and one has struck and partially demolished a pumping station. A nearby six-story apartment building is damaged and a four-story flat building almost demolished. The church at one end of the block has remained unscathed.

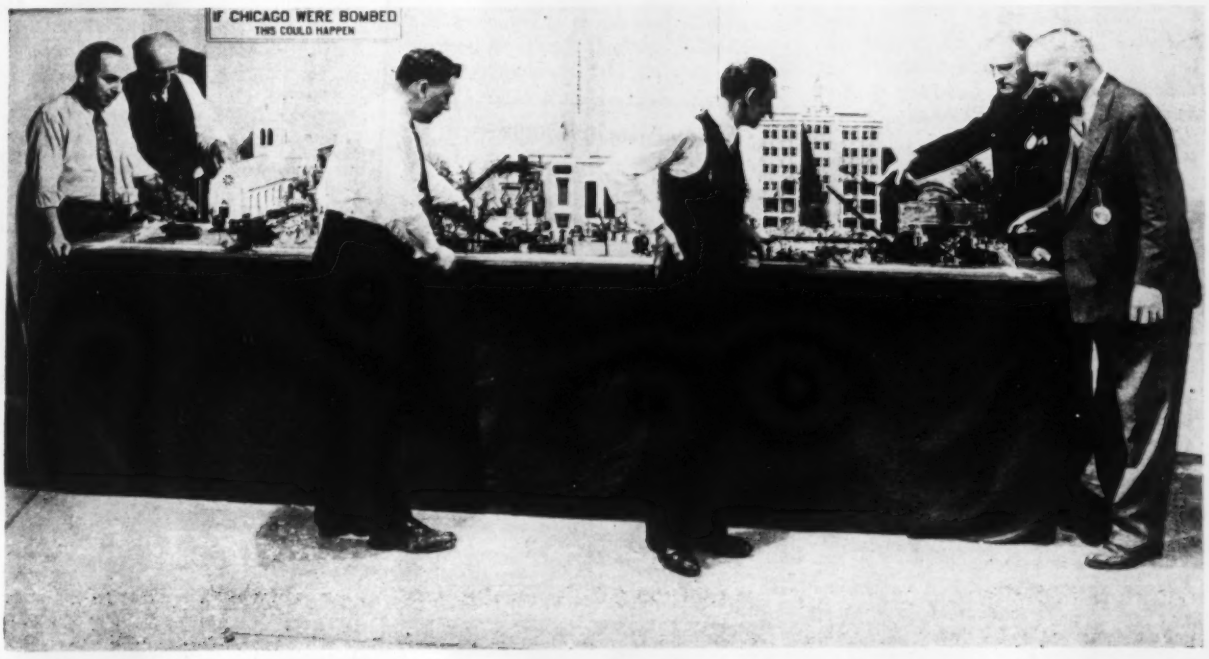
A gas bomb also has exploded on one corner of the pumping station property and a decontamination squad, with suitable equipment, is on the job neutralizing and mopping up the poison gas. The chlorine sterilizing squad has arrived with a portable emergency chlorinator and the chlorination of water mains has started. A truck loaded with chlorine cylinders stands nearby.

The two bombs striking the street have shattered water mains, a sewer, telephone and electric conduits and a gas line. Water line maintenance crews with equipment are at work, and they have installed a bypass main around one of the craters, cleaned out the debris and are ready to make permanent repairs. The repair gangs are carrying away the wreckage from the pumping station and are starting to repair the steam-driven centrifugal pump, which is badly damaged.

The model conveys the impression that the situation is well in hand by the men who have been organized for the sole duty of maintaining the water supply at all times. The model was built by six members of the division of water works design, under the direction of O. B. Carlisle, engineer of waterworks design. Engineers working on the model include Paul Reckow, Fred Ayres, Harry Sussman, Paul Labus, D. E. Kennedy and Milton Schuham.

A bomb struck the center of the boulevard, badly damaging water mains and other utilities, but the Water Pipe Extension Division has already installed a bypass around the crater and are making permanent repairs to the damaged main.

O. B. Carlisle (extreme right) engineer of waterworks design, shows the display to W. W. DeBerard, city engineer of Chicago.



OBITUARY

Sheldon K. Baker, 62, Arizona civil engineer who played a prominent part in the development of the Salt River project, died July 12 at La Jolla, Calif. Mr. Baker came to Arizona in 1905, and was in charge of the construction of much of the canal system on the project. He had served as consulting engineer for the State Planning Board and the National Resources Board, and in those capacities made a complete survey of the resources of Arizona, the study still being considered an outstanding work on the state. He was an engineer for the city of Phoenix in the planning and construction of the Verde pipeline, the water distribution and sewer systems in outlying districts and the storm water system in the downtown area.

John Henry Hamilton, 63, a civil engineer with the Philadelphia Department of Public Works, died July 10 in Atlantic City. He had been a city employee for 42 years and was associated with the construction of most of the bridges built in the city within the past 30 years.

Ellery C. Loofbourrow, 75, former city engineer of Lorain, Ohio, died there July 13. He was a member of the engineering firm of Nichols & Loofbourrow of Lorain.

James E. DeMars, 71, who was chief engineer of the Chattanooga, Tenn., City Water Company at the time of his retirement in 1937, died July 13 at Chattanooga.

Cornelius A. Sheridan, 42, former borough engineer and resident engineer for the Pan American Oil Company of New York, died July 13 at Elizabeth, N. J.

Henry Countiss Metz, 70, civil engineer with the Fairmount Park (Pa.) Commission for the last 22 years, died July 14.

Charles deHart Brower, Jr., 58, civil engineer and an employee of the General Electric Co., died July 12 in Swarthmore, Pa.

LeRoy W. Woodmansee, 70, an engineer for the Chicago & Northwestern Railroad for many years, died July 11 at Milwaukee, Wis.

Henry W. Tomlinson, engineer and architect of Joliet, Ill., died there July 12. As a construction engineer, Mr. Tomlinson was associated with building Illinois' Statesville prison north of Joliet, as superintendent of steel fabrication.

John F. Meagher, 66, former civil engineer with the PWA at Portland, Oregon, died at Portland July 9. A native of New York State, he had spent 20 years as a railroad engineer before joining the PWA.

George H. Seacrist, 77, formerly an associate of the Building Contracting firm of Jacob Seacrist & Sons, York, Pa., died at St. Petersburg, Fla., recently.

Bernard T. Wisenall, widely known Middle Ohio Valley architect, died recently at Covington, Ky.

Burton L. Boye, president of the Asphalt Institute from 1933 to 1938 and formerly in charge of the asphalt department of the Standard Oil Company of New York, died at Summit, N. J., July 9.

Joseph F. Harding, 67, contractor of Birmingham, Ala., died recently there.

Charles Edward Richards, 83, founder and president of the construction firm of Richards-Neustadt Co., of Los Angeles, died there July 11.

Frederick E. Kurz, 51, central division manager for the Eimco Corp. at Chicago, died July 10 at Elmhurst, Ill. He had served as an officer in the Corps of Engineers during the first world war, and was well known in the waterworks field.

CONTRACTS AND CAPITAL

ENGINEERING CONSTRUCTION volume for the week, $148,171,000, is 15 percent below the total for the preceding week, and 28 percent under the volume for the corresponding 1941 week.

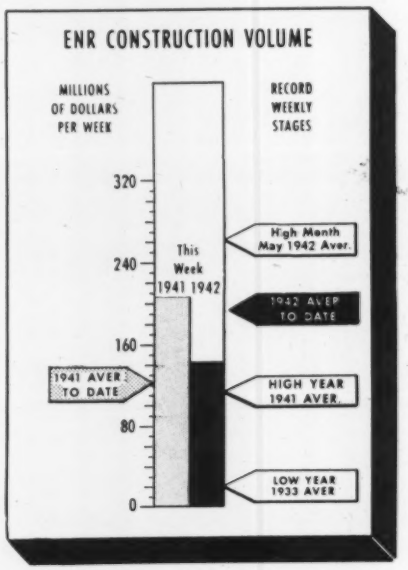
Private engineering construction climbs 42 percent above a week ago, but is 28 percent under a year ago. Public work is 18 and 28 percent lower, respectively, than last week and last year.

The current week's construction brings the 1942 volume to $5,847,020,000, an increase of 61 percent over the total for the 30-week period in 1941. Private work, $388,560,000, is 52 percent below the period last year, but public construction, $5,458,460,000, is 94 percent higher than a year ago as a result of the 148 percent gain in federal work.

In the classified construction groups, gains over last week are reported in commercial building and large-scale private housing, and unclassified construction. Increases over the 1941 week are in streets and roads, and unclassified construction.

New capital for construction purposes for the week totals $1,692,261,000. This compares with $10,889,000 for the week last year. The current week's new financing is made up of $1,685,122,000 in federal appropriations for War Department construction, $6,660,000 in corporate security issues, and $479,000 in state and municipal bond sales.

New construction financing for the year to date, $9,493,390,000, is 93 percent greater than the volume reported for the 30-week period a year ago.



CONTRACTS

(Thousands of dollars)

	Week Ending July 24 1941	July 16 1942	July 23 1942
Federal	$173,621	$156,351	$128,487
State & Municipal	17,034	10,073	8,717
Total public	$190,655	$166,424	$137,204
Total private	15,222	7,705	10,967
TOTALS	$205,877	$174,129	$148,171
Cumulative 1942	(30 weeks)		$5,847,020
1941	(30 weeks)		$3,626,972

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1941 30 weeks	1942 30 weeks
NON-FEDERAL	$906,170	$526,492
Corp. Securities	281,570	157,619
State & Mun.	294,827	158,754
U.S.H.A. loans	30,399	.....
R.E.A. loans	100,500	.....
R.F.C. loans	35,874	127,419
Fed.-Aid—Highways	163,000	82,700
FEDERAL	$4,027,389	$8,966,898
TOTAL CAPITAL	$4,933,559	$9,493,390

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	July '42	277.65	133.46
Building Cost	July '42	223.45	120.79
Volume	June '42	752	330

FHA MORTGAGES

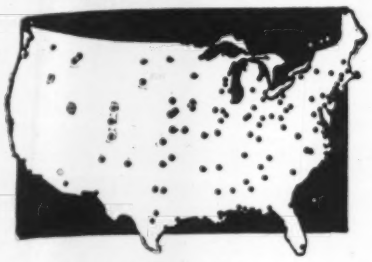
	Week Ending July 19 1941	July 11 1942	July 18 1942
Selected for appraisal			
Title II	$32,366	$4,979	$5,533*
Title VI	$ 4,184	$13,361	$12,412*

* Subject to revision.

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents



Symbols and Abbreviations Include

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily
A-E-M Architect — Engineer-Management type of contract.

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply — Unclassified
Sewers, Waste Disposal — Latin America
Bridges, Grade Cross'gs — Public Buildings
Streets & Roads — Commercial Buildings
Earthwork, Waterways — Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

WATER SUPPLY

PROPOSED WORK

D. C., Wash. — District Comrs., District Bldg., received no bids July 14, 30 in. diam. concrete trunk watermain, appurtenances, S. Capitol St., Overlook Ave. and 4 St. S.W. $266,470. CD 7/9..

★**†O., Lockland**—Federal Works Agency, 1731 S. Michigan St., Chicago, Ill., drilling wells, constructing reservoir, pipe work for water supply sys. $3,000,000. Alvord, Burdick & Howson, 20 N. Wacker Dr., Chicago, Ill., engrs.

★**†R. I., Newport**—City, bids soon, WW expansion, earth and cement dam, impounding reservoir in Lawton Valley, filtration plant, watermains. $865,000. **FWA.** Charles A. Maguire & Assoc., Turk's Head Bldg., Providence, consult. engrs.

★**†R. I., Portsmouth** and **Middleton**—Federal Works Agency, 18 and F Sts. N.W., Wash., D. C., bids soon water sys., Lawton's Valley, 2½ mi. 20 and 24 in. c.i. or asbestos cement pipeline, 2,700 ft. earth dam, reservoir and filtration plant. $865,000. **FWA.** Charles Maguire & Associates, 1515 Turks Head Bldg., Providence, engrs. CD 4/24—ENR 4/30.

†Tex., Elgin—City, voted $25,000 bonds. WW imprvs. expansion, Tex. 41-415. $86,000 **FWA.** J. Montgomery, Littlefield Bldg., Austin, engr. CD 5/25—ENR 5/28.

★**†Tex., Houston**—San Jacinto River Conservation & Reclamation Dist., and Federal Works Agency, bids soon, earthen dam, locks, 3 low-head left stations, canals and ducts, incl. 100 m.g.c. storage reservoir, on San Jacinto River 25 mi. from here, deep wells, bulkheads, spillways. $5,750,000. **FWA.** Haile & McClendon, 2801 San Jacinto St., Houston, and Freese & Nichols, Capps Bldg., Fort Worth, engrs. CD 7/9/40—ENR 7/11/40.

Wash. Sedro-Woolley—Skagit Co. Public Utility Dist., Mount Vernon, watermains. $30,000.

BIDS ASKED

Bids Asked July 27

Ont., Port Credit—L. Wagness, municipality clk. water sys. imprvs. $25,000. F. McArthur, Town Hall, engr.

Bids Asked July 31

†N. H., Portsmouth — Federal Works Agency, 120 Boylston St., Boston, Mass., Contr. 2, pump. station, gravel packed wells, N.H. 27-901. H. E. Bailey, 177 State St., Boston, Mass., engr.

Bids Asked About August 1

†N. Y., Kenmore (br. Buffalo)—Federal Works Agency, 18 and F Sts. N.W., Wash., D. C., 1,600 ft. watermain, booster pump. sta., etc. to connect Buffalo and Kenmore municipal water sys. $36,000. A. Drake, City Hall, Buffalo, dir. water. CD 7/7—ENR 7/9.

Bids Asked August 3

Md., Towson—Comrs. Baltimore Co., Court House, Contr. 60-W, Item 1, 3,260 lin. ft. 6 in. c.i. watermains, etc. vicinity Marlyn Ave., Essex.

Bids Asked August 10

Ia., Charles City—J. W. McGeeney, city clk., 300,000 gal. elevated water tank. J. S. Dawson, city engr.

Bids Asked

†New Mexico—U. S. Eng., Albuquerque, water distr. lines, facilities, over $15,000; sanitary sewer collecting lines, facilities, over $25,000; natural gas distr. lines, facilities, over $25,000. Plans deposit $50 for each project.

LOW BIDDERS

†Calif., Vallejo—Federal Works Agency, 498 S. Spring St., Los Angeles, July 17, water distr. sys., Calif. 4-126, Unit 3, Contr. 3, Bid 6-RE-84, from Pacific Pipeline Constr. Co., $732 Juniper St., Los Angeles, **$103,965.** CD 7/9.

†Calif., San Luis Obispo—Federal Works Agency, 498 S. Spring St., Los Angeles, July 17, water supply pipeline, Calif. 1-151, Unit 3, Contr. 1, Bid 6-RE-82, from R. M. Price, 2764 Saturn Ave., Huntington Park, **$166,655.** CD 7/9.

D. C., Wash.—District Comrs., District Bldg., July 14, 30 in. watermain 18 St. to Minn. Ave. to Firth and Sterling Aves., from Foley & Longo, 55 W. 42 St., New York, N. Y., **$236,035.** CD 6/17—ENR 6/25.

Wash., Renton—Water Dist. 62, 703 Arctic Bldg., Seattle, July 10, water distr. sys. south of here, from Michelotti & Co., 1750 Rainier Ave., Seattle. **$31,046.** CD 7/2—ENR 7/9.

CONTRACTS AWARDED

†Arkansas—U. S. Eng., P. O. Box 97, Memphis, Tenn., 2 wells, to Layne-Arkansas Co., Stuttgart.

Kan., Topeka—Watermain, to O'Neill Const. Co., Leavenworth. **$49,994.** W. E. Baldry, city engr. Bids 7/8.

†Mass., Fall River—City, Watuppa Water Bd., City Hall, pump. station, Diesel equip., Contr. 2, MASS 9-101, to I. Capaldi & Sons Inc., 278 Silver Spring St., Providence, R. I. Est. **$100,000. FWA.** CD 3/10—ENR 3/12.

Mass., Medway—B. Isabelle McGourty, town clk., water sys., wells, to D. L. Maher, 388 Brattle St., Cambridge. Est. **$28,500.** Bids 7/10. CD 7/7—6/11.

S. C., Charleston—Comrs. P. Wks., Charleston, exten. watermain from pump. sta. to city by adding 3rd main, Charleston Co., S.C. 38-128, day labor. **$316,000.** J. E. Gibson, 14 George St., engr.

†Va., Gravelly Point—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., furnishing, installing pump. equip. for addnl. fire protection, to A. M. Diamond, 50 Court St., Brooklyn, N. Y. **$17,707.**

†Va., Newport News—Federal Works Agency, 18 and F Sts. N.W., Wash., D. C., pump station, intake line and operator's house at Walker, near here, to Suburban Engineering Co., 15 W. 38 St., New York, N. Y. **$118,997. FWA.**

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Colo., Denver—City and County of Denver, c/o C. Davis, sanitary engr., rejected bids July 2, sewage disposal plant. Black & Veatch, 4706 Hway., Kansas City, Mo., engrs. CD 7/7—ENR 7/9, under LB.

Conn., New Britain—P. Wks. Dpt., City Hall, sanitary sewers, Willow Brook Section. $30,000. G. C. Molleur, city engr.

Md., Towson—Comrs. Baltimore Co., Courthouse, rejected bids May 25, installing 28,000 lin. ft. sanitary sewers, Lodge Forrest; vitr. sewers, Contr. 57 S, Golden Ring. CD 6/1—ENR 6/4, under LB.

O., Euclid (br. Cleveland)—City, K. T. Sims, mayor, 505 E. 222 St., storm sewers, E. 260 St. and Babbitt Rd. $150,000. F. Thomas, city engr.

†Tex., Dickinson—Galveston Co. Water Control & Imprvt. Dist. 1, c/o D. V. DePasquale, pres., construction sewage disposal plant, Tex. 41-346, withheld until after duration by W. P. B. Ruling. **FWA.** CD 6/22—ENR 6/25 under LB.

†Tex., Elgin—City, R. L. Carter, mayor, voted $25,000 bonds sanitary sewerage sys. imprvs., expansion. Tex. 41-415 $30,000. **FWA.** J. Montgomery, Littlefield Bldg., Austin, engr. CD 5/25—ENR 5/28 under WW.

BIDS ASKED

Bids Asked July 29

O., Port Clinton—W. Zeis, clk., approx. 16,000 ft. 6- to 30-in. trunk sanitary sewers, etc. Plans deposit $10. Finkbeiner, Pettis & Stroub, Nicholas Bldg., Toledo, engrs.

Bids Asked August 3

Ia., Davenport—R. C. Graham, supt. construction, sewerage sys. addns. Over $25,000.

Md., Towson—Comrs. Baltimore Co., Court House, Contr. 61S, Item 2, sanitary sewers etc. vicinity Marlyn Ave., Essex.

LOW BIDDERS

†Mississippi—U. S. Eng., Courthouse, Mobile, Ala., sewage treatment plant, Inv. 569-43-2, from Rust Engineering Co., Martin Bldg., Birmingham, Ala.

†Va., Newport News—City, July 7, addns. sewerage systems, VA. 44-264, from Kalill Co., 30 E. 3 St., Columbus, O., **$410,020. FWA.** Greeley & Hansen, Adams Bldg., Norfolk, engrs. CD 6/24—ENR 7/2.

†Va., Portsmouth—City, July 7, sect. sewerage project, Va. 44-265, from Newton A. K. Bugbee, Inc., 206 E. Hanover St., Trenton, N. J., **$84,065. FWA.** Greeley & Hansen, Adams Bldg., Norfolk, engrs. CD 6/24—ENR 7/2.

CONTRACTS AWARDED

★**†Alabama** — U. S. Eng., 306 Courthouse, Nashville, Tenn., sewer, drainage, to Carey M. George & Assoc., Mobile. Est. **$100,000-$500,000.** Bids 7/6. Rejected bids 7/7, paving, will readvertise. CD 6/19—ENR 6/25.

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, sanitary sewers and watermains, to I. L. Whitehead, Sault Ste. Marie, less than **$1,000,000.**

†Mississippi—U. S. Eng., Courthouse, Mobile, Ala., sewage treatment plant, Inv. 569-43-2, to Rust Eng. Co., Martin Bldg., Birmingham, Ala.

†North Carolina—U. S. Eng., Marion, sewage disposal plant, to A. H. Guion & Co., Wilkinson Blvd., Charlotte. Bids 7/10.

†South Carolina—U. S. Eng., Walterboro, sewerage and water distr. sys., to C. Y. Thomason Co., Greenwood. Bids 7/6 and 7/10 respectively.

†Texas—U. S. Eng., Fort Sam Houston, sewage treatment plant, Spec. 42-160, to R. E. Ewing, 1222 19 St., Corpus Christi, less than **$100,000.** Bids 7/11. CD 7/3.

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

Kan., Kansas City — City, Chicago, Rock Island & Pacific Ry. Co., W. H. Hillis, asst. ch. Oper. Off., LaSalle St., Chicago, Ill., Union Pacific R.R., B. H. Prater, ch. engr., 1416 Dodge St., Omaha, Neb., rejected bids June 23, repairing 18 St. viaduct. Over $25,000. T. Schlup, city engr. CD 6/3—ENR 7/2, under LB.

BRIDGES, etc. (Proposed Work, Cont'd.)

★**O., Cleveland**—F. Foy, purch. agt., bond election Aug. 4, reconstructing 12 bridges. $4,000,000. J. M. Heffelfinger, 518 City Hall, engr.

†**Texas**—U. S. Eng., Citizens Bank Bldg., Denison, rejected bids June 18, overpass. Inv. 267-42-228, Lamar Co. CD 6/9—ENR 6/11.

BIDS ASKED

Bids Asked July 28

Iowa—State Hy. Comn., Ames, 7 rein.-con. box culvert extens., County Trunk Rd. E, FSN-676-B, Hancock Co.; rein.-con. roadway culvert and concrete flume, Iowa 344, Sect. 32, Marshall Twp., FN-812-A(1), Taylor Co. F. R. White, Ames, ch. engr.

Bids Asked July 28

Maryland—State Roads Comn., Baltimore, dual structures over Penna. R.R. near Short Lane on Boothby Hill Rd., Contr. H-269-1-466, Harford Co. CD 7/14—ENR 7/16.

LOW BIDDERS

California—State Div. Hys., C. H. Purcell, engr., P. Wks. Bldg., Sacramento, July 15, widening bridge over Grapevine Creek, 5 mi. north of Lebec, Kern Co., from Trewhitt-Shields & Fisher, 1501 Pacific Southwest Bldg., Fresno. $51,256. CD 6/26—ENR 7/2.

CONTRACTS AWARDED

New Jersey — Pennsylvania R.R. Co., E. Adams, ch. engr. (New York zone), Penna. Station, New York, N. Y., repairing railroad bridges, Newark Bay, Hackensack and Passaic Rivers, Essex, Bergen and Passaic Counties, to Allen N. Spooner & Son, Pier 11, North River, New York, N. Y., over $25,000.

STREETS AND ROADS

BIDS ASKED

Bids Asked July 27

New Jersey—S. Miller, Jr., comr., State Hy. Dpt., grading, borrow excav., concrete paving 3.515 mi. Fort Dix Access Rd., Sect. 2, Burlington Co.

Bids Asked July 28

Iowa—State Hy. Comn., Ames, grading, graveling 4.945 mi. County Trunk Rd. E, FSN-676-B, Hancock Co.; graveling 9.061 mi. Iowa 37, FN-861-A(1), Monona Co.; gravel or stone surfacing 16 mi. Iowa 25, 9 mi. Iowa 92, M-4239, Adair Co.; 4.1 mi. Iowa 2, M-4235, Decatur Co.; 6.155 cu. yd. Iowa 22, 77 and 304, M-5216, Keokuk Co.; 15.7 mi. U.S. 169, 1.4 mi. Iowa 259, 2.1 mi. Iowa 260, 5.5 mi. County Road R, 4.5 mi. Iowa 2 detour, M-4236, Ringgold Co.; 4.3 mi. Iowa 25, 0.6 mi. Iowa 356, M-4237, Taylor Co.; 18.6 mi. Iowa 25, M-4238, Union Co.; gravel and cover aggregate surfacing 4.5 mi. Iowa 288, 3.4 mi. Iowa 337, 5.5 mi. Iowa 212, stockpiles on Iowa 9, U.S. 65 and Iowa 227, M-2213, Cerro Gordo, Worth and Mitchell Counties; gravel surfacing 3.4 mi. Iowa 37, 5.6 mi. Iowa 37, M-3261, Monona and Crawford Counties; special cover aggregate surfacing 3,800 cu. yd. stockpiles on Iowa 92, 48 and 83, M-4234, Cass Co.; 1,000 cu. yd. stockpiles Iowa 181, M-5215, Marion Co.; 750 cu. yd. stockpiles, Iowa 48, M-4240, Montgomery Co. F. R. White, Ames, ch. engr.

Ohio—State Hy. Dpt., Columbus, asphaltic concrete resurfacing 0.765 mi. Sect. Lima of SH 128, US 30, Allen Co., $13,670; 1.611 mi. Sect. Piqua and F of SH 237 and 245, US 25, Miami Co., $36,500; 0.5 mi. Sect. Brilliant of SH 7, Jefferson Co., $5,630; applying aggregate treatment 4.1 mi. Sect. K, SH 320, Putnam Co., $4,170; 4.34 mi. Sect. B of SH 747, Allen Co., $4,065; 4.07 mi. Sects. F and E, of SH 875, Allen and Van Wert Counties, $3,320; grading, drainage structures, continuous beam bridge over Pine Creek 4.39 mi. Sects. O and R-2A of SH 7, US 52, Scioto Co., $452,000; grading, drainage structures, concrete paving 2.501 mi. Sects. Avon and Sheffield, of SH 827, Lorain Co., $137,400; grading, drainage structures, draining, concrete paving, roadside imprv. 1.81 mi. Sects. P and D, of SH 86 and 89, Columbiana Co., $154,300***grading, draining, paving, widening asphaltic concrete surface and waterbound macadam base, roadside imprv. 2.093 mi. Sect. F of SH 924, Franklin Co., $67,800; bituminous treating 13.04 mi. Sects. SH of Nos. 3,313 and 694, Lorain Co., $46,138; 35.54 mi. Sects. of SH Nos. 474, 536, 71, 872, 325 and 919, Portage, Stark, Summit, Trumbull and Mahoning Counties, $63,779; constructing storm sewer, 0.091 mi. Sect. M-1 of SH 7, Jefferson Co., $18,500.

Bids Asked July 28

West Virginia—State Road Comn., D. McClaugherty, secy., Charleston, asphaltic concrete on macadam surfacing 5.981 mi. Ansted-Hico Rd., SNA-176-C(2), Fayette Co.

Bids Asked July 29

Ill., Chicago—Dpt. P. Wks., City Hall, concrete paving W. 83 St., S. Vincennes to S. Stewart Aves. Plans deposit $10.

Louisiana—Dpt. Hys., Baton Rouge, concrete paving 6.207 mi. Fillmore Doyline Hy., State Routes 560 and C-2083, Bossier and Webster Parishes; 9.060 mi. Camp Claiborne Hy., State Routes C-2070 and C-2081; 12.521 mi. Gardner-Alexandria Hy., Route C-2080, both Rapides Parish.

Bids Asked July 30

Arkansas — State Hy. Dpt., Little Rock, gravel surfacing 15.7 mi. Strawberry-Powhatan Rd., Lawrence Co.; furnishing, hauling 13.738 mi. traffic service gravel, St. Francis Co.; bituminous surfacing 6.8 mi. DA-WR-8 access road, Walnut Ridge; 1.854 mi. Helena-Alco-Tech road; paving 3.308 mi. and timber bridge, DA-WR 7, Blytheville access project, Mississippi Co.; furnishing, hauling 17.4 mi. gravel, Fordyce City; 7.822 mi. gravel, Columbia Co.; 17.663 mi. gravel, Prairie Co.; bank protection on Red River, Garland City. W. W. Zass, Little Rock, engr.

Bids Asked July 31

Illinois—State Dpt. Pub. Wks. & Bldgs., Div. Hys., Springfield, bituminous resurfacing 1.81 mi. S.B.I. Route 28 (U.S. 34), Sect. 8RS, Bureau Co.; 1.8 mi. S.B.I. Route 8 (U.S. Rte. 24, Washington St.), and S.B.I. Route 9 (U.S. Rte. 150), Sect. G-1RS, G-RS, 11RS, Dist. 4, Tazewell and Woodford Counties; concrete pavement reconstruction 3.4 mi. S.B.I. Route 150, Marked Route 3, Sect. 130, Dist. 9, Jackson Co.; 1.48 mi. S.B.I. Route 150 (Marked Route 3), and F.A.S. Route 915, Dist. 9, Sect. 131R and 6 G-2, Jackson Co.; gravel or crushed stone surface course, 2.3 mi. S.B.I. Route 2 (U.S. Route 51), Sect. 7G-1, F.A.S. Route 939, Dist. 9, Pulaski Co.; concrete pavement relocation 3.84 mi. S.B.I. Route 16 (U.S. Rte. 66), Sect. 22-1, S.N.-F.A. Proj. 113C(1), F.A. Route 5, Dist. 8, Montgomery and Macoupin Counties; 3.84 mi. S.B.I. Route 4 (U.S. Route 66), Sect. 7R, S.N.-A.-F.A. Proj. 25(7) (2), F.A. Route 5, Dist. 3, Grundy and Livingston Counties; 3.77 mi. S.B.I. Rte. 4 (U.S. Route 66), Sect. 6R, S.N.-A. F.A. Proj. 25(6) (2) and 7(2), F.A. Route 5, Dist. 3, Grundy Co.; concrete paving patching 5,373 sq. yd. S.B.I. Route 13, Dist. 8, Patching 1, St. Clair, Randolph and Washington Counties; 9,345 sq. yd. S.B.I. Route 159, S.NI. Route 3, and S.A. Route 9, Dist. 8, Patching 7, St. Clair, Monroe and Randolph Counties; 1,510 sq. yd. S.B.I. Route 2 (U.S. Rte. 52), and S.B.I. Route 152, Dist. 9, Patching 12, Perry and Washington Counties; 5,595 sq. yd. S.B.I. Route 28 (U.S. Route 34), Dist. 4, Patching 12, Henry, Knox and Bureau Counties; 6,031 sq. yd. S.B.I. Route 3 (U.S. Route 67), Dist. 8, Patching 4, Greene and Jersey Counties; 4,450 sq. yd. S.B.I. Route 149, and S.B.I. Route 148, Dist. 9, Patching 9, Franklin and Williamson Counties; bituminous seal coat surfacing 3.66 mi. Sect. KQ, K-1Q and K-2Q, F.A.S. Rte. 74, Dist. 2, Jo Daviess Co.; 16.3 mi. Sects. 1Q, 2Q, 3Q, 17Q and RQ, F.A.S. Routes 235, 236, 202 and S.A. Route 18, Dist. 2, Henry and Whiteside Counties; 5.9 mi. Sects. 8Q, 8Q-1, 9Q and 10Q, F.A.S. Route 79, Dist. 2, Carroll and Ogle Counties; 2.51 mi. Sect. 1Q, F.A.S. Route 525, Dist. 2, Bureau and LaSalle Counties; Combination No. 2, Grundy Co., Sects. 6R and 7R, F.A. Route 5, Dist. 3, Grundy Co.; Combination No. 1, Sects. 1Q, 8Q, 8Q-1, 9Q, 10Q, KQ, K-1Q and K-2Q, F.A.S. Route 252, Bureau, LaSalle, Carroll, Ogle and Jo Daviess Counties; Combination No. 3, Sects. 130R, 131R and 6G-2, S.B.I. Route 150 and F.A.S. Route 915, Dist. 9, Jackson Co. W. W. Polk, Centennial Bldg., Springfield, ch. state hy. engr.

★**New York**—A. W. Brandt, supt. P. Wks., Albany, imprv. hys. Jefferson, Kings, Nassau and Orange Counties; reconstructing 7.16 mi. hy. Essex Co. Plans deposit $10 for 1st and plans deposit $5 each latter counties; adv. ENR 7/23.

Bids Asked August 4

Pa., Pittsburgh—Comrs. Allegheny Co., R. G. Woodside, controller, Court House, Duquesne Way River front imprvs., Contr. 14 A, paving, draining, entire roadway. Levi Burd Duff, County Office Bldg., engr. Plans deposit $15. Bids 6/2 rejected. CD 6/8—ENR 6/11, under LB.

Washington—State Hy. Dpt., Olympia, reinforcing existing roadbed with selected roadway borrow and constructing steel girder bridge, 14.725 mi. Secondary State Hy. 9-A, Twin to Clallam Bay Junction, Clallam Co.; clearing, grubbing, grading, draining, surfacing Secondary State Hy. 13-2, Chapin Creek to Johns River, Grays Harbor Co.; constructing ferry slip and approach trestle and reconstructing existing cradle and dolphins for Tacoma Narrows Ferry Point Fosdick Terminal, Pierce C. B. Bantz, state hy. dir.

Bids Asked August 6

California—State Div. Hys., State Bldg., Los Angeles, grading, asphalt concrete and concrete paving 8 St. and Harbor Dr., San Diego (XI-SD-Harbor Dr.) San Diego Co. Over $25,000. C. H. Purcell, Sacramento, state hy. engr.

Bids Asked

Kentucky—Dpt. Hys., Frankfort, rejected bids July 10 imprv. 9.270 mi. Boyle and Lincoln Counties, 10.549 mi. Lincoln Co., and 9.597 mi. Warren Co. CD 7/14—ENR 7/16, under LB.

Louisiana—Dpt. Hys., Baton Rouge, received no bids July 10, concrete paving 9.06 mi. Camp Claiborne-Lecompte Hy. and 12.521 mi. Gardner-Alexandria Hy., both Rapides Parish; 6.207 mi. Bossier and Webster Parishes. CD 6/29—ENR 7/2.

Nevada—State Dpt. Hys., Carson City, received no bids July 13, imprv. 3.61 mi. Clark Co. R. A. Allen, state hy. engr. CD 7/2.

North Dakota—State Hy. D[illegible] received no bids July 17, impr[illegible] Co., 18.3 mi. Pembina Co., 8.5 [illegible] and 8.2 mi. Traill Co. Rejected [illegible] imprv. Hy. 81, Pembina Co.; [illegible] and Morton Counties. CD 7/8.

Utah—State Road Comn., Salt [illegible] jected bids July 6, bituminous su[illegible] mi. Redwood Rd., between Nor[illegible] and 35 South St., Salt Lake [illegible] Will readvertise. CD 6/30.

LOW BIDDERS

Alabama—State Hy. Dpt., [illegible] W. G. Pruitt, dir., July 14, impr[illegible] Calhoun Co., Proposal A, from [illegible] Constr. Co., Decatur, Ga., $116,440; from Ledbetter-Johnson Co., Rome, [illegible] 595. CD 7/3.

†**Alabama**—U. S. Eng., Courthou[illegible] July 14, clearing, grubbing roads, [illegible] 14, from C. C. Foster Co., Ozark.

Arizona—State Hy. Comn., Phoen[illegible] imprv. 2 mi. Greenlee Co., from [illegible] Constr. Co., 412 Luhrs Tower, Phoe[illegible] 255. CD 6/30—ENR 7/2.

California—State Div. Hys., [illegible] Los Angeles, July 16, concrete and [illegible] concrete paving 1 mi. Harnett Ave. and Lytton St., San Diego Co., from R. E. Hazard & Sons, P. O. Box 1510, San Diego, $126,759. CD 7/10.

California—State Div. Hys., Sacramento, July 15, imprv. hy. near Half Moon Bay, San Mateo Co., from Macco Constr. Co., 815 Paramount Blvd., Clearwater, $394,878; 42 mi. Siskiyou Co., from Poulos & McEwen, P. O. Box 1017 Sacramento, $83,317. Rec[illegible] no bids July 15, imprv. 3 mi. Nevada and Sierra Counties. CD 6/26—ENR 7/2.

Idaho—Dpt. P. Wks., Bureau Hys., Boise, July 10, seal coating 22.017 mi. Old Oregon Trail and 26.27 mi. Raft River Hy., Miscellaneous Proj. 1111, Gooding, Twin Falls and Cassia Counties, from Hoops Constr. Co., Twin Falls, $59,079. Received no bids July 10, imprv. 12.47 mi. Latah Co.; 9.206 mi. Gooding and Camas Counties.

Idaho—State Dpt. P. Wks., Bureau Hys., Boise, July 17, imprv. 7.118 mi. Old Oregon Trail, SN FAP 11-A(3) and SN Federal Lands Proj. 13-A(1), Elmore Co., from T. Marrazzo, 1411 Morris Hill Bd., Boise, $261,756, est. $283,422; received no bids July 1, imprv. 9.206 mi. Gooding-Fairfield Hy., SAP No. 195-A(3) and 196-A(2) B(2), Gooding and Camas Counties.

★**Kentucky**—State Dpt. Hys., Frankfort, July 17, imprv. 7.001 mi. Bullitt and Spencer Counties, and 1.991 mi. Jefferson Co., from Highland Co., Inc., 644 Baxter St., Louisville, $54,438 and $62,956 respectively***5.827 mi. Clinton Co., from Cumberland Constr. Co., Burkesville, $106,841***5.885 mi. SP 52-147 and 5.378 mi. SP 52-127 Henry Co., from White Consolidated, Inc., 1735 W. Fullerton St., Chicago, Ill. $52,180 and $46,003 respectively***9.769 mi. Larue Co., from Gay-Coleman Const. Co., Lexington, $66,213***3.542 mi. Laurel Co., from Andrews Asphalt Paving Co., Hamilton, O., $40,869***11.308 mi. Mason Co., from Lahman-Roberts Co., Lexington, $140,408***9.562 mi. Webster and Union Counties, from Kentucky Rock Asphalt Co., S. W. corner 9 and Dumesnil Sts., Louisville, $66,183. Received no bids July 17, imprv. 2.011 mi. Graves Co. CD 6/23—ENR 7/2.

Louisiana—State Dpt. Hys., Baton Rouge, July 10, imprv. 6.167 mi. East Baton Rouge Parish, from Central Constr. Co., Monroe, $313,031. CD 7/6.

★**Maryland**—State Roads Comn., Baltimore, July 14, imprv. 3.818 mi. Contr. SM 252-566, St. Marys Co., from J. H. Ensey, 1619 Ridgely St., Baltimore, $375,856; 3.674 mi. Contr. Ch 251-566 and SM 251-1-566, Charles and St. Marys Co., from M. J. Grove Lime Co., Lime Kiln, $235,668. CD 7/8.

Michigan—State Hy. Dpt., Lansing, imprv. 0.249 mi. Wayne Co., from E. Closser, 11325 Robson Ave., Detroit, $28,112***0.942 mi. Oakland Co., from Frank J. Knight Co., 3681 Dunn Rd., Detroit, $133,504***18.1 mi. Benzie and Manistee Counties, from T. P. Flynn & Co., 6432 Cass Ave., Detroit, $37,430***13.6 mi. Cass and St. Joseph Counties, from J. Nerington, Territorial Rd., RFD 2, Benton Harbor, $29,004***12.92 mi. Wexford, Benzie, Manistee and Grand Traverse Counties, from Marsman & Teber, 415 Murray Bldg., Grand Rapids, $29,041. CD 7/1.

O., Toledo—City, July 14, repairing concrete sidewalks and constructing new sidewalks, from C. A. Schoen, 1805 Dover St., $172,781. Est. $200,000.

†**Virginia**—Public Roads Admin., 515-14 St. N.W., Wash., D. C., July 11, War Dept. Bldg., road network project VA. DA-WR-8, Paving 24 from Arlington Asphalt Co., Rosslyn, $204,835. CD 7/7.

†**Virginia**—Pub. Roads Admin., 515-14 St. N.W., Wash., D. C., July 17, Paving 23, War Dept. Bldg. road network Project Va. DA WR-8, from Arlington Asphalt Co., Rosslyn, $213,822. CD 7/6—ENR 7/9.

Wisconsin—State Hy. Comn., Madison, July 17, imprv. 9.693 mi. Jefferson Co., from Streu Constr. Co., Two Rivers, $278,548***0.852 mi. Buffalo Co., from L. G. Arnold, Inc., Eau Claire, $49,265***2.707 mi. Dane and Columbia Counties, from J. E. Schultz, Madison, $99,880. CD 7/2—ENR 7/9.

STREETS, etc. (Low Bidders, Cont'd.)

CONTRACTS AWARDED

★**†Georgia**—U. S. Eng., Courthouse & Post-office, Jacksonville, Fla., paving, JAX-42-136, to Scott Constr. Co., Thomasville, less than **$1,000,000.**

Idaho—Dpt. P. Wks., Bureau Hys., Boise, impry. 4.45 mi. Project AN FAS 61-A(1), Kootenai Co. to R. L. Blair, 1220 Ide St., Spokane, Wash. **$99,435;** 12.75 mi. Miscellaneous Hy. Project, 1011, Lewis Co. to T. Marrazzo, 1411 Morris Hill Rd., Boise. **$31,868.** Bids 7/10.

Illinois—State Dpt. P. Wks. & Bldgs., Div. Hys., Springfield, imprvs. 8,360 sq. yd. Cook Co., to John A. McGarry Co., 189 W. Madison St., Chicago, **$43,251.** Bids 6/19. CD 6/22—ENR 6/25, under LB.

Ill., Mackinaw—City, blacktopping town streets, to R. Cullinan, Tremont, **$25,000.**

†Kansas—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., concrete pavement, driveways, to L. V. Hites Co., City Bank Bldg., Kansas City, Mo. **$465,550.** Howard, Needles, Tammen & Bergendoff, Orear Leslie Bldg., Kansas City, Mo., engrs.

Minnesota—State Hy. Dpt., St. Paul, impry. 3.1 mi. S.P. 3307-06, Trunk Hy. 66-5. FAP 91 (3), to A. L. Alley & Son, Roseau, **$44,850.** Bids 7/3. CD 7/14—ENR 7/16, under LB.

Nevada—Dpt. Hys., Carson City, impry. 4.47 mi. Washoe Co., to Union Paving Co., 212 Babcock Bldg., San Francisco, Calif., **$87,854.** Bids 7/16. CD 7/8, under BA.

North Dakota—State Hy. Dpt., Bismarck, regrading, etc., 11 mi. Hy. 10, SN-TAP 305-A (5) and 305 C(4), Morton Co. and bituminous surfacing same road, to Bismarck Constr. Co., Bismarck, **$207,478** and **$207,148** respectively. Bids 7/17. CD 7/8.

★**Ohio**—State Hy. Dpt., Columbus, impry. 4.884 mi. Portage and Trumbull Counties, Sect. A-GS and Sect. A-F, to General Asphalt Paving Co., 307 Kahler Bldg., Canton, **$341,855** and **$273,761,** respectively***0.045 mi. Sect. B, same road, to Herbruck & Anghenbough, Inc., 550 Barwell St., Akron. **$69,377*****4.314 mi. Union Co., to A. W. Burns Constr. Co., 424 Woodland Ave., Columbus, **$35,583,** est. $42,170***2.386 mi. Richland Co., to Mansfield Asphalt Paving Co., 153 E. Orange St., Mansfield, **$67,500*****3.342 mi. Mahoning Co., to Standard Slag Co., 1200 City Bank Bldg., Youngstown, **$36,826,** est. $37,300. Grand total $524,702. Bids 7/14. Cancelled bids to have been opened July 14: impry. 8.439 mi. Wayne Co. $132,070. Received no bids July 14: impry. 0.153 mi. Seneca, 0.477 mi. Morgan, 3.722 mi. Franklin and 0.379 mi. Cuyahoga Counties. CD 7/8.

O., Marion—Marion Co. Bd., surface treating roads, to N. S. Constr. Co., Upper Sandusky, $70,200. W. W. Johnson, Marion, co. engr.

O., Springfield—Clark Co. Bd. Comrs., Springfield, bituminous road mix surface resurfacing 8.6 mi. Upper and Lower Valley Pikes, to A and B Street Oil & Tar Co., 342 Warder St. **$39,674.** Est. $40,000. Bids 7/2. W. A. Burg, co. engr.

Ore., Bend—Deschutes Co., C. L. Allen, judge, County Courthouse, graveling, oiling Lower Bridge Rd., Deschutes Co., own forces, **$50,000.**

†Texas—U. S. Eng., Federal Bldg., Galveston, addnl. roads, streets, to Cage Bros. and J. O. Palmer, c/o General Delivery, Uvalde, **$210,000.**

Tex., Beaumont—Pennsylvania Shipyards, Inc., Beaumont, 24 ft. concrete paving, to J. B. Hawthorne, 5008 Park Dr., Houston, **$47,900.** Est. $60,000. Awarded 7/10.

Tex., Longview—Gregg Co., c/o Judge, limestone rock asphalt road surfacing Inv. 66-13538, to Whites Uvalde Mines, Alamo Bldg., San Antonio, **$109,907.**

†Utah—U. S. Eng., 32 Exchange Pl., Salt Lake City, roads, to Wheelwright Constr. Co., 2434 Monroe Ave., Ogden, **$34,000.** Bids 7/10.

Utah—State Road Comn., Salt Lake City, concrete and natural rock asphalt road surfacing 6.204 mi. Davis and Weber Counties, to O. Nelson, Logan, **$415,359.** Est. $389,318. Bids 7/6. CD 6/20.

†Wisconsin—U. S. Eng., W. North Bank Dr., Chicago, Ill., grading, paving, storm sewers, etc., to J. R. Griffith Co., Racine, and L. G. Arnold, Inc., Eau Claire. Bids 6/25.

†Wisconsin—U. S. Eng., 408 Federal Bldg., Milwaukee, 13 mi. 14 ft. wide pavement, to Milwaukee Constr. Co., 2808 N. Sherman Blvd., Milwaukee. Bids 7/6.

EARTHWORK, WATERWAYS

PROPOSED WORK

Calif., Redwood City—MacDonald & Kahn, Inc., 200 Financial Center Bldg., San Francisco, 4 basins, Port of Redwood City.

†Tex., Edinburg — International Boundary Comn., Farmers Bank Bldg., San Benito, contract refused, constructing Main and Arroyo Colorado Floodways at North Floodway junction, Project temporarily abandoned. CD 6/8—ENR 6/11, under LB.

†Tex., Robstown — Nueces Co. Drainage Sys. 2, c/o A. M. Stone, Route 1, $185,000 bond election latter part of August, drainage sys., exten. present ditches, new drainage ditches, incl. approx. 1,778,591 cu. yd. excav., 75 bridges, Tex. 41-257. $483,595. **FWA,** Garrett Eng. Co., 3504 Audubon St., Houston, engrs. CD 6/15—ENR 6/18.

BIDS ASKED

Bids Asked July 27

Ont., Oshawa — Dominion Govt., Ottawa, reconstructing harbor walls. $40,000. K. M. Cameron, Ottawa, engr.

Bids Asked July 29

Pennsylvania—Dpt. Forests & Waters, C. E. Ryder, dir. Bureau Waters, Harrisburg, flood control, known as Dickson City project, incl. removal bars immediately below Troop-Dickson City Bridge, etc. $16,000. C. E. Ryder, c/o owner, engr.

Bids Asked July 31

Miss., Belzoni — Belzoni Drainage Dist., Belzoni, widening old drains, constructing new drainage, moving 250,000 cu. yd. dirt. Extended date. Plans deposit $10. CD 6/23—ENR 6/25.

Bids Asked August 12

†California—Bureau Reclamation, Customhouse, Denver, Colo., fabricated pipe, fittings, for conduit tube valves, Shasta Dam, Kennet Div., Central Valley project, Spec. 1654-D.

LOW BIDDERS

†La., New Orleans—U. S. Eng., foot of Prytania St., New Orleans, July 14, dredging 150,000 cu. yd. material, Inv. 43-5, from Shell Producers Co., 115 S. Water St., Tampa, Fla. CD 7/8.

CONTRACTS AWARDED

†Ia., Dubuque—U. S. Eng., Rock Island, Ill., rip-rapping Mississippi River banks below Dubuque Dam No. 11, own forces. **$20,000.**

Pa., Wilkes-Barre—City Council, City Hall, dredging channel Mill Creek, to Banks Constr. Co., Meyer Bldg. Est. **$15,000.** G. B. Walker, city engr.

†Texas—U. S. Eng., Fort Sam Houston, broad irrigation sys., Spec. 42-158, to Drummond & Yeatts, Abilene. **$56,600.** Bids about 7/8, awarded 7/14. CD 7/2.

UNCLASSIFIED

PROPOSED WORK

★**Ark., Helena**—PIPELINE—Gulf Refining Co., El Dorado, pipeline from Eldorado to here, etc. Over $500,000. Eby Engineering Co., El Dorado, engr.

★**†California** — IMPROVEMENTS — California Steel Products Co., Barrett Ave. and A St., Richmond, imprvs. Federally financed.

★**Conn., Groton (br. New London)**—AIRPORT—State Airport Comn., State Offices, Hartford, bids soon, airport, exten. 4 runways from 2,400 to 4,000 ft., grading, drainage, paving, etc. Trumbull Field. $685,000.

★**Minn., Mankato** — AIRPORT — Airport. $250,000-$500,000. Special election on $250,000 bond issue.

★**†New York**—IMPROVEMENTS—U. S. Eng., 120 Wall St., New York, imprvs. Over $3,000,000. A. D. Crosett, 512 5 Ave., New York, engr. and archt.

★**†New York**—TRACK SPUR—Delaware & Hudson R. R. Corp., P. O. Ferris, ch. engr., foot of State St., Albany, 30 mi. single track spur to run from North Creek, N. Y., to Lake Sanford mine of National Lead Co., Essex Co. $3,000,000. Defense Plant Corp. will finance.

★**O., Columbus** — RAILROAD IMPROVEMENTS—Pennsylvania R.R. Co., Union Depot, Chicago, Ill., I. W. Geer, ch. engr. (western region), addnl. railroad facilities, rebuilding 3 viaducts. $2,500,000.

BIDS ASKED

Bids Asked July 27

Ont., London — IMPROVEMENTS — Secy. Dpt. Munitions & Supply, Ottawa, Ont., imprvs., addnl. temporary accommodation at E.F.T. School and Air Observers School 4, $200,000.

Bids Asked about July 28

†Wisconsin—IMPROVEMENTS—U. S. Eng., 222 W. North Bank Dr., Chicago, Ill., macadam and black top paving, etc. Suhr, Berryman, Peterson & Suhr, 130 N. Wells St., Chicago, Ill., engrs.

Bids Asked August 4

†Tennessee — GRADING, etc. — Tennessee Valley Auth., Knoxville, grading relocation Louisville & Nashville Ry. from west bank Tennessee River to Faxon, 3.8 mi., Proj. 8-203, Req. 337065; and grading 2 sections relocation Nashville, Chattanooga and St. Louis Ry. between Denver and Camden, 2 mi., Proj. 8-301, Sect. 1, and Proj. 8-303, Req. 337066; adv. ENR 7/23.

Bids Asked August 5

†Arizona-California—TRANSMISSION LINE—Bureau Reclamation, Parker Dam, Calif., 69 kilovolt transmission line from Parker power plant, Parker Dam project to Bagdad mine. Spec. 1043; adv. ENR 7/23.

Bids Asked August 6

†New York—TOPSOILING, etc.—New York City Housing Auth., 122 E. 42 St., New York, topsoiling, planting, for Edwin Markham Housing, for NHA.

Bids Asked August 7

★**†Kansas**—IMPROVEMENTS—U. S. Eng., Albuquerque, N. M., imprvs., military housing facilities. Over $2,000,000. CD 6/22—ENR 6/25, under Public Bldgs.

Bids Asked August 10

★**†Kansas**—IMPROVEMENTS—U. S. Eng., Albuquerque, N. M., imprvs., military housing. Over $2,000,000. CD 7/15—ENR 6/4.

Bids Asked

†New Mexico—ELECTRICAL DISTRIBUTING SYSTEM—U. S. Eng., Albuquerque, outdoor overhead electrical distr. sys., facilities $40,000. Plans deposit $25.

†Texas and **Oklahoma**—IMPROVEMENTS—U. S. Eng., Box 61, Tulsa, Okla., imprvs. $80,000. Plans deposit $30.

†Texas—GASOLINE and FUEL STORAGE TANKS—U. S. Eng., Federal Bldg., Galveston, A.C. steel tanks for gasoline and fuel storage. $25,000. Plans deposit $25.

†Texas — IMPROVEMENTS — U. S. Eng., Fort Sam Houston, underground utilities, water distr. sys., sanitary sewerage sys., gas distr. sys., Spec. 42-217. Plans deposit $25.

★**†Texas** — IMPROVEMENTS — U. S. Eng., Federal Bldg., Galveston, imprvs., natural gas distr. lines, facilities; grading, paving; sanitary sewer collecting lines, water distr. lines, facilities. Total est. $5,500,000. Plans deposit $50 for each project.

★**†Texas** — IMPROVEMENTS — U. S. Eng., Fort Sam Houston, imprvs., military housing, Spec. 42-145. Plans deposit $25.

LOW BIDDERS

†Alabama—IMPROVEMENTS—U. S. Eng., Courthouse, Mobile, July 6, imprvs., grading, drainage, paving, from Vandigriff Constr. Co., 4708 N. Court St., Montgomery.

†Texas—IMPROVEMENTS—U. S. Eng., Federal Bldg., Galveston, improvs., from Gaylord Constr. Co., 806 Bigdgett St., Houston. **$219,000.** Est. $260,000.

†Texas — IMPROVEMENTS — U. S. Eng., Fort Sam Houston, underground utilities, Spec. 42-186, from E. M. Null, Pine Hotel, Smithville.

CONTRACTS AWARDED

★**†Arizona**—IMPROVEMENTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., imprvs., bldgs., No. 651, to Del E. Webb Constr. Co., 302 S. 23 St., Phoenix, over **$1,000,000.** Bids 7/13. Awarded 7/16.

★**Arkansas**—IMPROVEMENTS—U. S. Eng., Gay Bldg., Little Rock, imprvs., bldgs., to Harman Constr. Co., 1138 N.W. 4 St., Oklahoma City, Okla. Less than **$3,000,000.** CD 5/29—ENR 6/4.

†Arkansas—IMPROVEMENTS—U. S. Eng., Gay Bldg., Little Rock, imprvs., to Anderson & Sons, Inc., 100 N. 7 St., Minneapolis, Minn. Awarded 7/7.

★**†Arkansas** — IMPROVEMENTS — U. S. Eng., P. O. Box 47, Memphis, Tenn., imprvs., to Weymouth Constr. Co., Memorial Apt., Nashville, Tenn., under **$1,000,000.** Bids 7/9. CD 7/6.

★**†Arkansas** — IMPROVEMENTS — U. S. Eng., Gay Bldg., Little Rock, imprvs., sewers and water facilities, to B & B Constr. Co., Wichita Falls, Tex., less than **$1,000,000.** Awarded 7/14.

★**†California** — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., 74 New Montgomery St., San Francisco, exten. primary underground electrical distr. sys., to Norman A. Russell, 50 Crawford Court, Santa Rosa, under **$1,030,000.** Awarded 7/15.

California—IMPROVEMENTS—Colberg Boat Works, 902 W. Lindsay St., Stockton, imprvs., day labor. Over **$40,000.**

★**†California**—IMPROVEMENTS—U. S. Eng., 74 New Montgomery St., San Francisco, imprvs., bldgs., to G. W. Williams Co., 10 California Dr., Burlingame, under **$1,000,000.** Awarded 7/1.

★**†California** — IMPROVEMENTS — U. S. Eng., 74 New Montgomery St., San Francisco, imprvs., to John Carlin Constr. Co., P. O. Box 879, Redding, under **$1,000,000.** Awarded 7/15.

★**†California** — IMPROVEMENTS — U. S. Eng., 74 New Montgomery St., San Francisco, imprvs., lighting sys. and exten. lighting sys., to A. Brizard, Inc., Arcata, under **$1,000,000** ea.; imprvs., relocation U.S. Hy. 101, to John Carlin Constr. Co., P. O. Box 879, Redding, under **$1,000,000.** Awarded 7/15.

UNCLASSIFIED (Contracts Awarded, Cont'd)

★**†California** — IMPROVEMENTS — U. S. Eng., 74 New Montgomery St., San Francisco, imprvs., to W. J. Wilkinson & H. B. Scott, P. O. Box 900, Watsonville; bldgs., to Floyd V. Hampshire, 246 Hawthorne St., Salinas, each contract less than **$1,000,000.** Awarded 7/15.

★**†California**—IMPROVEMENTS — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., imprvs., bldg., NOY 5606, to Macco Constr. Co., 815 Paramount Blvd., Clearwater. **$5,380,000.** Awarded 7/6.

†California—LIGHTING SYSTEM—U. S. Eng., 74 New Montgomery St., San Francisco, lighting sys., to Globe Electric Works, 1899 Mission St., San Francisco. Awarded 7/13.

California—WHARF—Industrial Company, wharf, sheet piles, to Healy-Tibbetts Constr. Co., 1100 Evans Ave., San Francisco.

★**†Connecticut** — SITE IMPROVEMENTS — Pub. Housing Auth., NHA, 24 School St., Boston, Mass., site imprvs., community bldg., water, sewer and electric utilities, CONN 6018, to Lindholm Constr. Co., Inc., 1277 East St., Pittsfield, **$1,100,000.** CD 7/13—ENR 7/16.

Conn., Hartford—HEATING SYSTEM—Hartford Hospital, 20 S. Hudson St., steam heating sys., to Libby & Blinn, Inc., 135 Sheldon St. **$25,700.**

★**†Florida** — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., Courthouse & Postoffice, Jacksonville, electrical distr. sys., to Bigby Elec. Co., Inc., 305 Franklin St., Tampa, less than **$1,000,000.**

★**†Florida**—IMPROVEMENTS — U. S. Eng., Courthouse & Postoffice, Jacksonville, imprvs., Inv. 569-42-18, to Brady Roofing & Tile Mfg. Co., 3260 N.W. 27 Ave., Miami, less than **$1,000,000.** Bids 7/16.

★**†Florida**—IMPROVEMENTS—U. S. Eng., U. S. Courthouse & Postoffice, Jacksonville, imprvs., Palm Beach Co., to Faulk & Colman, J. L. Cone and J. D. Manly, Caeser Ave. and Cumberland St., Tampa, **$500,000-$1,000,000.**

★**†Florida** — LIGHTING SYSTEM — U. S. Eng., Postoffice & Courthouse, Jacksonville, lighting sys., to J. R. Hine Elec. Co., Palm Beach, less than **$1,000,000.** Awarded 7/1.

★**†Florida** — LIGHTING SYSTEM — U. S. Eng., Courthouse & Postoffice, Jacksonville, lighting sys., Inv. 436-43-479, to Johnson & Gormly, Jacksonville, less than **$1,000,000.** Bids 7/8. CD 7/2.

★**†Florida** — LIGHTING SYSTEM — U. S. Eng., Courthouse & Postoffice, Jacksonville, lighting sys., Inv. 436-42-480, to Johnson & Gormly, Jacksonville, less than **$1,000,000.** CD 7/2. Bids 7/8.

★**†Florida** — RAILROAD SPUR TRACK — U. S. Eng., Courthouse & Postoffice, Jacksonville, railroad spur track, JAX-43-20, to B. B. McCormick & Sons, Inc., Graham Bldg., Jacksonville, less than **$1,000,000.**

†Illinois — SITE IMPROVEMENTS — Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, site imprvs., Ill-111-22, to C. B. Cochran, Marion, and C. A. Lybarger, Granite City. Bids 6/5.

†Illinois — SITE IMPROVEMENTS — Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, site imprvs., for temporary portable housing, Project Ill-111-23, to C. B. Cochran, Marion, and C. A. Lybarger, Granite City. Bids 6/5.

†Ill., Vandalia — IMPROVEMENTS — Civil Aeronautics Auth., 222 W. North Bank St., Chicago, general contract, imprvs., to Charles L. Mayes, Albion. **$160,000.** Bids 6/5. CD 5/26—ENR 5/28.

†Maine—LIGHTING SYSTEM—U. S. Eng., Park Square Bldg., Boston, Mass., night lighting sys., to Kerr Electric Co., Inc., 105 Main St., Auburn.

†Maine — OIL STORAGE TANKS — U. S. Eng., Park Square Bldg., Boston, Mass., oil storage tanks, facilities, to Coughlan Constr. Co., 80 Federal St., Boston, Mass. Bids 6/22. CD 6/18.

†Maine—RAMP—U. S. Eng., Park Square Bldg., Boston, Mass., concrete ramp, to Robertson & Henry, Huntington, W. Va. Bids 6/23.

★**†Michigan**—RAILROAD SIDINGS—U. S. Eng., 700 Union Guardian Bldg., Detroit, railroad sidings and concrete foundations for bldgs., to Brown & Matthews, 1400 Oakman St., Detroit, less than **$1,000,000.**

★**†Mississippi** — IMPROVEMENTS — U. S. Eng., Postoffice & Courthouse, Vicksburg, imprvs., Miss. 234, to James Ansell Parker, Crowville, La. Est. less than **$3,000,000.**

†Mississippi—NIGHT LIGHTING SYSTEM—U. S. Eng., Courthouse, Mobile, Ala., night lighting sys., to Bethune Elec. Co., 315 S. 20 St., Birmingham, Ala.

†Mississippi—OIL STORAGE SYSTEM—U. S. Eng., Courthouse, Mobile, Ala., oil storage and distr. sys., Inv. 569-42-789, to Loftis Plumbing & Heating Co., 45 Mangum St. S.W., Atlanta, Ga. Bids 7/10. CD 7/6.

†Mississippi—SITE IMPROVEMENTS—Pub. Housing Auth., NHA. Electric Bldg., Fort Worth, Tex., site imprvs., clearing, for housing, to Boh Bros., 2400 Cypress St., New Orleans, La. CD 7/10—ENR 7/16, under CA.

★**†Miss., Laurel** — IMPROVEMENTS — U. S. Eng., 494 Spring St. N.W., Atlanta, Ga., imprvs., to Layne Central Co., 1993 Chelsea Ave., Memphis, Tenn., Crawford Co., 206 S. 14 St., Baton Rouge, La., Boyd Constr., Columbia, and Roy Keshaw, Montgomery, Ala. Est. over **$3,000,000.** Fromherz Associates, 226 Carondelet St., New Orleans, La., engrs. and archts.

★**†Montana**—IMPROVEMENTS—U. S. Eng., Fort Peck, imprvs., to Peter Kiewit Sons Co., 1024 Omaha Natl. Bank Bldg., Omaha, Neb., **$3,700,000.** CD 5/28—ENR 6/4.

Neb., Fairbury—AIRPORT—Elsie Schuelle, city clk., airport exten., imprvs. **WPA. $235,000.**

★**†New Hampshire**—FACILITIES—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Supplementary Agreement 1, addnl. facilities, NOY 5094, to Sanders Engineering Co. and Robertson-Henry Co., 145 Congress St., Portland, Me. **$2,155,-000.** Additional to CD 3/17, under CA.

N. J., South Amboy — YARD IMPROVEMENTS — Pennsylvania R.R., C. E. Adams, ch. engr. (New York Zone), Penna. Sta., New York, N. Y., imprvs. railroad yard, boiler-house addn., 2 addns. thawing shed, excav., removing foundation and timber bulkhead, new concrete footings and span over hy., to Brann & Stuart Co. Inc., Broad St. Station Bldg., Phila., Pa. **$225,000.**

★**†New York**—IMPROVEMENTS—U. S. Eng., 120 Wall St., New York, imprvs., to Seaboard Constr. Corp., 19 Kisco Ave., Mt. Kisco, **$1,799,560.** Bids 6/16. CD 6/30—ENR 7/2 under LB.

★**†Oregon** — IMPROVEMENTS — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., imprvs., Contr. NOY 5424, to Sound Construction & Engineering Co., 1012 Northern Life Tower, Seattle, Wash. **$5,213,400.** Awarded 7/2.

Pennsylvania — RAILROAD — Baltimore & Ohio R. R., A. C. Clarke, ch. engr., Baltimore and Charles Sts., Baltimore, Md., new ties, ballasting, replacing **rails, etc., own forces.** Over **$25,000.** CD 7/10—ENR 7/16.

Pa., Williamsport—REMOVAL TROLLEY TRACKS, etc.—City Council, R. R. Rall dir. Streets, removing 8 mi. abandoned trolley tracks and bituminous materials resurfacing afterwards. **WPA. $75,000.** L. Mussina, city engr.

★**†Tennessee** — IMPROVEMENTS — U. S. Eng., 306 U. S. Courthouse, Nashville, imprvs. bldgs., to M. T. Reed Constr. Co., Belzoni, Miss.; shops, etc., to N. E. Yearwood, 1701 Church St., Nashville, less than **$3,000,000.**

†Tennessee—IMPROVEMENTS—U. S. Eng., 306 U. S. Courthouse, Nashville, imprvs., to A. R. Abrams, 41 Exchange Pl., Atlanta, Ga. CD 7/1—ENR 7/9.

★**†Texas and Illinois** — PIPELINE — War Emergency Pipeline, Inc., B. E. Hull, vice. pres., Little Rock, Ark., 550 mi. oil pipeline from Longview, Tex., to Norris City, Ill., with 2 smaller branch lines, from Norris City to Mount Vernon, Ind., and Enfield, Ill., as follows, Longview, Tex., to Arkansas-Texas State Line to Williams Bros. Corp., Natl. Bank of Tulsa Bldg., Tulsa, Okla.*** Arkansas-Texas stateline to Gurdon, Ark., to O. E. Dempsey Const. Co., Kennedy Bldg., Tulsa, Okla.***Gurdon to Little Rock, Ark., (Arkansas River) to Anderson Brothers, Tulsa, Okla.***Harrisburg to Norris City, Ill., and 14 mi. branch line from Norris City, Ill., to Mt. Vernon, Ind., to Sheehan Pipe Line Constr. Co., Natl. Bank of Tulsa Bldg., Tulsa, Okla.; Little Rock to Missouri-Arkansas state line (St. Francis River), to Oklahoma Contracting Co., Magnolia Bldg., Dallas, Tex.***St. Francis River to Illmo, Mo., (Mississippi River) to C. S. Foreman Co., N. Y. Life Bldg., Kansas City, Mo.*** Mississippi River to Harrisburg, Ill., to Ray E. Smith Constr. Co., Eldorado, Kan. Total est. **$35,000,000.** Defense Plant Corp. will finance. CD 7/7—ENR 7/9, under CA.

†Texas — IMPROVEMENTS — U. S. Eng., Fort Sam Houston, imprvs., Spec. 42-154, to B. B. Smith, Inc., 2111 Richmond St., Houston. **$215,000.** Awarded 7/11. CD 7/2.

†Texas—GASOLINE and FUEL STORAGE SYSTEM—U. S. Eng., Federal Bldg., Galveston, A.C. gasoline and fuel storage sys., facilities, to J. W. France, Lawrence Lane, Corpus Christi, **$66,000.**

†Texas — IMPROVEMENTS — U. S. Eng., Denison, imprvs., collecting sanitary sewer lines, facilities, and water distr. lines, facilities, Inv. 257-42-262, to J. F. Buckner, Cleburne, **$12,000** and **$26,600** respectively. CD 6/19—ENR 6/25.

†Texas—IMPROVEMENTS—U. S. Eng., Federal Bldg., Galveston, imprvs., asphalt paving (259-42-685), to Thomas & Ratliff, Rogers Tex. and F. Hall, Waco. **$226,000.**

†Texas—IMPROVEMENTS—U. S. Eng., Federal Bldg., Galveston, imprvs., bldg., to Smith Bldg. Co., Waco, **$96,000.**

Texas — IMPROVEMENTS — Industrial Company, imprvs., to W. Horace Williams, 833 Howard Ave., New Orleans, La. **$358,000.** Additional to CD 6/3—ENR 6/11, under CA.

†Texas—NATURAL GAS DISTRIBUTING LINES—U. S. Eng., Waco, natural gas distr. lines, to Panhandle, Sira & Dalton, 3901 Elm St., Dallas, **$43,000.**

†Texas — UNDERGROUND UTILITIES — U. S. Eng., Fort Sam Houston, underground utilities, Spec. 42-156, to E. M. Null, Corpus Christi, less than **$100,000.** Bids 7/8.

†Texas — IMPROVEMENT — U. S. Eng., Federal Bldg., Galveston, paving and drainage work, ... Asphalt Williams, c/o General Del ... Bros. & Bragelow. **$242,000** and **$78,500** respect... CD 7/16—ENR 7/16.

†Texas — IMPROVEMENT — U. S. Eng., Federal Bldg., Galveston, ... work (259-42-693), to Tho... drainage Rogers, and F. Hall, Waco. ...,200.

†Texas—RAILWAY TRAC... etc.—U. S. Eng., Fort Sam Houston ra... spurs, facilities, Spec. 42-153, to Mar... Grace Bldg., Grande Natl. Bldg., Dallas ...,000. about 6/30, awarded 7/9. CD ... Bids

★**†Tex., Marfa** — IMPROVE... TS — U. S. Eng., Albuquerque, N. M., ... to Mc-Gough Bros., Bankers Mortgage ... Bldg., Houston. Est. **$3,000,000.**

★**†Utah**—IMPROVEMENTS—... S. Eng., 32 Exchange Pl., Salt Lake ... imprvs., bldgs., to L. F. Dow Co., Mc... and Mc-Kenzie Aves., Los Angeles, Ca... Bids 7/6. $2,163,920

PUBLIC BUILDINGS

PROPOSED WORK

★**†Ariz., Del Rio**—U. S. Eng., ... and Douglas Sts. N.W., Wash., D. C., preliminary plans camp.

★**†Colorado**—U. S. Eng., c/o Postmaster, Denver, bldg. Over $5,000,000.

★**†Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., plans by Harry G. Lindsay, 211 State St., Bridgeport, housing. $2,000,000.

★**†Ill., Lewiston**—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., preliminary plans camp.

★**†Indiana**—Allied Architects, archts., 909 Archts. & Bldrs. Bldg., Indianapolis, received no bids June 30, housing, Ind 12101, for Pub. Housing Auth., NHA, North Interior Bldg., Wash., D. C. $1,047,000. CD 6/23—ENR 6/25.

★**†Louisiana**—Texas Co., 919 St. Charles St., New Orleans, Humble Oil & Refining Co., Humble Bldg., Houston, Tex., Tide Water Asso. Oil Co., and Phillips Petroleum Co., both Esperson Bldg., Houston, Tex., plant. $2,000,000. Federally financed.

★**†Louisiana**—U. S. Eng., Postoffice and Courthouse, Vicksburg, Miss., housing $2,000,000.

★**†Maine**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., indefinitely postponed bids to have been opened July 17, housing, ME 17036. $500,000. Wadsworth & Boston, 57 Exchange St., Boston, Mass., archts. CD 7/14—ENR 6/25.

†Me., York—Town, bids will not be called for before August, high school, Docket ME 17-117. $55,000. **FWA.** CD 6/22—ENR 6/25, under BA.

★**†Miss., Corinth**—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., preliminary plans camp.

★**†Missouri**—U. S. Eng., Postoffice & Courthouse, Vicksburg, Miss., military installation. Over $2,000,000.

★**†Missouri**—War Dpt., 20 St. & Constitution Ave. N.W., Wash., D. C., housing, sewers, etc. Over $2,000,000.

†New York—U. S. Eng., Chimes Bldg., Syracuse, expanding bldgs. Over $5,000,000.

★**†Ohio** — Kelley Island Lime & Transportation Co., Leader Bldg., Cleveland, kilns. $1,000,000. Defense Plant Corp. will finance.

★**†Ohio**—National Carbon Co., Inc., 30 E. 42 St., New York, N. Y., plant. $2,500,000-$3,000,000. Defense Plant Corp. will finance.

★**†Oklahoma**—U. S. Eng., 416 Wright Bldg., Tulsa, military installations. Over $2,000,000.

†Pennsylvania—Allegheny County Housing Auth., F. L. Palmer, exec. dir., 201 County Office Bldg., Pittsburgh, indefinitely postponed bids to have been opened July 28, housing, Project Pa. 36104, for NHA. CD 7/6—ENR 7/9.

★**†Pennsylvania** — Beaver County Housing Auth., R. Bennett, chn., Tamaqua Village, Vanport, housing, Proj. Pa. 36201 and Proj. Pa. 363-2, for NHA. Extended date. CD 7/15—ENR 7/2.

†Pennsylvania—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., indefinitely postponed bids to have been opened July 21, permanent housing, Proj. Pa. 36085. CD 7/2—ENR 7/9.

★**†Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., indefinitely postponed bids to have been opened July 22, housing, Projects Pa. 36372 and Pa. 36273. CD 7/6—ENR 7/9.

★**†S. D., Rapid City**—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., placed camp here in advanced planning stage. Projects reported CD 6/25—ENR 7/2 recalled.

†Texas—Fort Worth Housing Auth., Fort Worth, postponed taking bids housing, Tex. 4-14. $250,000. CD 7/8—ENR 7/16.

★**†Texas**—Pub. Housing Auth., NHA, Electric Bldg., Fort Worth, postponed bids to have been opened July 16, housing, streets, utilities, etc., Tex. 41-113. $500,000. Hedrick & Lindsley, 818 Southern Standard Bldg., Houston, archts. CD 7/7—ENR 7/9.

PUBLIC BLDGS. (Proposed Work, Cont'd.)

★†**Texas**—Reconstruction Finance Corp., 811 Vermont Ave. N.W., Wash., D. C., plant. $2,000,000.

★†**Texas**—U. S. Eng., Citizens Bank Bldg., Denison, bldgs. $2,000,000.

★†**Texas**—U. S. Eng., Federal Bldg., Galveston, bldgs. $2,000,000. CD 7/8—ENR 7/16.

★†**Texas**—U. S. Eng., Federal Bldg., Galveston, housing. $2,000,000.

★†**Utah**—U. S. Eng., 32 Exchange Pl., Salt Lake City, expanding bldg. To exceed $2,000,000.

★†**Washington** — Tacoma Housing Auth., Provident Bldg., Tacoma, rejected bids, housing, for NHA. $6,000,000. CD 7/15, under LB.

†**Wash., Bremerton**—School Dist. 100C received no bids July 9, general contract high school. Mechanical work, from Lent's Inc., 279 4 St., **$166,633**; wiring, from Electric Co., Port Angeles, **$66,460**. **FWA.** CD 6/30—ENR 8/2.

★†**Pacific Northwest**—U. S. Eng., Textile Tower, Seattle, Wash., military housing facilities, etc.

BIDS ASKED

Bids Asked July 29

†**New Jersey**—Asbury Park Housing Auth., Asbury Park, housing, Project N.J.-7-2, Washington Village, for NHA. Extended date. CD 6/18—ENR 6/25.

Bids Asked July 30

†**Delaware** — Pub. Housing Auth., NHA, Temp. Bldg. 2, 19 and D Sts., Wash., D. C., housing, Project DEL 1-2. Plans deposit $50. CD 7/2—ENR 7/9.

Bids Asked July 31

†**South Carolina**—U. S. Eng., Fort Jackson, addnl. bldgs. Plans deposit $25.

†**Wash., Odair**—Bureau Reclamation, Customhouse, Denver, Colo., sucker or pull rods, Grand Coulee right powerhouse, Inv. E-38,-088-A, Columbia Basin.

Bids Asked August 3

†**Ga., Rossville** — Walker Co., c/o F. B. Murphy, Sr., Rossville, health center bldg. $7,000. **FWA.** R. H. Hunt & Co., Chattanooga, Tenn., archts. CD 4/2—ENR 4/9.

Bids Asked in August

★†**D. C., Wash.**—Pub. Housing Auth., NHA, Temporary Bldg. No. 2, 19 and D Sts. N.W., Wash., D. C., permanent housing, DC-1-1 (Part 2) and permanent housing DC 1-6.

★†**Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., permanent housing, PA-18-2. CD 5/14—ENR 5/21.

★†**Virginia** — Pub. Housing Auth., NHA, Temporary Bldg. No. 2, 19 and D Sts. N.W., Wash., D. C., permanent housing, VA-1-3. CD 5/26—ENR 5/28.

Bids Asked September 14

★†**Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., housing, Pa. 36258. Extended date. Silverman & Levy, Architects Bldg., 17 and Sansom Sts., Phila., archts. CD 7/6—ENR 7/9.

Bids Asked

★†**Delaware** — Pub. Housing Auth., NHA, Temp. Bldg. 2, 19 and D Sts. N.W., Wash., D. C., homes. CD 6/17—ENR 6/26.

†**Texas**—U. S. Eng., Federal Bldg., Galveston, bldgs., sanitary sewers, waterlines, facilities; natural gas distr. lines, facilities. Plans deposit $25 ea. project.

†**Texas** — U. S. Eng., Texarkana, bldgs., loading ramps, water reservoir, sewers, pumphouse, etc., Inv. 257-42-242. $250,000. No bids received about 6/30. CD 6/25.

LOW BIDDERS

†**California**—U. S. Eng., Wright Bldg., Sacramento, July 14, defense housing, Spec. 122, from Campbell Constr. Co., 800 R. St., Sacramento. **$281,511.** CD 7/6—ENR 7/9.

†**California**—U. S. Eng., Wright Bldg., Sacramento, July 14, housing, utilities, site imprvs., Spec. 121, from Evans & Hayes, 838 Hedges St., Fresno. **$167,283.** CD 7/6—ENR 7/9.

★†**California**—U. S. Eng., Wright Bldg., Sacramento, July 15, misc. bldgs., water and sewer distr. sys., streets, electric distr. sys., Spec. 105, from F. C. Stolte, 1405 San Antonio Ave., Alameda, **$3,113,274.**

★†**Maryland**—Baltimore Housing Auth., 709 E. Eager St., Baltimore, July 14, Somerset Court Housing, site imprvs., etc., Project, MD 2-10, for NHA, from Compton Constr. Co., Graybar Bldg., New York, N. Y. **$1,756,000.** CD 7/10—ENR 7/2.

★†**Ohio** — Lorain Metropolitan Housing Auth., Lorain, July 6, homes, for NHA, from Schirmer Peterson Co., 6830 Beaver Ave., Cleveland. **$1,371,583.** Garfield, Harris, Robinson & Schafer, National City Bldg., Cleveland, archts. CD 5/26—ENR 5/28.

†**South Carolina**—U. S. Eng., Fort Jackson, July 16, altering bldgs., from Boyle Constr. Co., Sumter.

†**Texas**—U. S. Eng., Fort Sam Houston, bldgs., Spec. 42-161, from S. R. Franck, 1215 Gulf St., Dallas. **$269,500.**

CONTRACTS AWARDED

★†**Ala., Mobile**—City, hospital and nurses home, Docket Ala. 1-225, to Roberts & Long Constr. Co., Chickasaw, **$510,000. FWA.** CD 3/2—ENR 3/5.

†**Arkansas** — Pub. Housing Auth., NHA, Electric Bldg., Fort Worth, Tex., demountable housing, Ark.-3031, to E. L. Bruce Co., Thomas St., Memphis, Tenn. **$291,300.** Project originally planned at Hope. CD 2/19—ENR 2/26, under CA.

†**California** — Housing Auth. of City of Richmond, 271 16 St., Richmond, administration bldg., etc., for NHA, to Oliver M. Rousseau, 321 Kearny St., San Francisco. CD 7/14—ENR 7/16.

†**California** — Pub. Housing Auth., NHA, Humboldt Bank Bldg., 785 Market St., San Francisco, demountable units, Cal. 4124, to Plywood Structures, 6307 Wilshire Blvd., Los Angeles. **$444,450.** Project originally planned at Paso Robles. CD 2/10—ENR 2/26, under CA.

†**California** — Pub. Housing Auth., NHA, Humboldt Bank Bldg., 785 Market St., San Francisco, demountable units, Cal. 4231, to Plywood Structures, 6307 Wilshire Blvd., Los Angeles. **$414,820.** Project originally planned at Victorville. CD 2/19—ENR 2/26, under CA.

†**California** — Pub. Housing Auth., NHA, Humboldt Bank Bldg., 785 Market St., San Francisco, demountable housing, Cal. 4193, to Plywood Structures, 6307 Wilshire Blvd., Los Angeles. **$370,375.** Project originally planned at Sacramento. CD 2/19—ENR 2/26, under CA.

†**California**—U. S. Eng., 751 S. Figueroa St., Los Angeles, storage bldg., San Bernardino Co., to W. J. Hunter, 660 Heliotrope Dr., Los Angeles, **$50,000-$100,000.**

★†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldgs., to R. J. Mintum Constr. Co., 155 Sansome St., San Francisco, and Howell Eng. Co., 823 Kohl Bldg., San Francisco, under **$1,000,000.** Awarded 7/15.

†**California**—U. S. Eng., 751 S. Figueroa St., Los Angeles, housing facilities, to Allied Contractors, 6512 Wilshire Blvd., Los Angeles; housing facilities, to Alco Constr. Co., 5423 Fleming Village Lane, Los Angeles. Awarded 7/13.

★†**Colorado**—U. S. Eng., c/o Postmaster, Denver, letter of intent with E. I. Du Pont De Nemours and Co., DuPont Bldg., Wilmington, Del. to construct and operate plant. Over **$3,000,000.**

†**Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., demountable housing, to The Prebilt Co., Revere Beach Parkway, Revere, Mass. Est. **$375,000.** Project originally planned at Pittsfield, Mass. CD 2/27—ENR 3/5, under CA.

★†**Florida**—U. S. Eng., Courthouse & Postoffice, Jacksonville, bldgs., Inv. Neg.-Jax-42-147, to J. L. Ewell, Lakeland***bldgs., Inv. Jax-42-135, to C. A. Hanson Co., Inc., 1st Natl. Bank Bldg., Tampa***bldgs., to A. W. Smith & Son, Fruitland Park***bldgs., to Johnson & Mann, Walgreen Bldg., St. Petersburg***bldgs., to Brady Roofing Tiles Mfg. Co., 3260 N.W. 27 Ave., Miami*** bldgs., Inv. Neg.-Jax-42-123, to P. F. Martin, Lake Wales, each contract less than **$1,-000,000.**

★†**Florida**—U. S. Eng., Courthouse & Postoffice, Jacksonville, bldgs., to A. W. Smith & Son, Fruitland Park, less than **$1,-000,000.**

★†**Florida**—U. S. Eng., Courthouse & Postoffice, Jacksonville, bldgs., to Frank J. Rooney, 5880 N.E. 4 Ave., Miami, less than **$1,000,000.**

★†**Florida**—U. S. Eng., U. S. Courthouse & Postoffice, Jacksonville, addnl. hospital facilities, Hillsborough Co., to Fred Howland, Inc., Postal Bldg., Miami, **$500,000-$1,000,000.**

†**Georgia**—U. S. Eng., 494 Spring St. N.W., Atlanta, bldgs., to Marthame Sanders, 774 Spring St. N.W., Atlanta.

†**Ga., Chickamauga**—U. S. Eng., 494 Spring St., N.W., Atlanta, addnl. bldgs., to John Martin, Chattanooga, Tenn.

★†**Illinois**—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, temporary housing units, Ill.-11122, to H. E. Mitchell Constr., Harrisburg. Bids 6/21. CD 5/26—ENR 5/28.

★†**Illinois**—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, temporary housing, Ill.-11-23, to H. E. Mitchell Constr. Co., Harrisburg. Bids 6/21. CD 5/26—ENR 5/28.

†**Illinois** — U. S. Eng., 520 Merchandise Mart, Chicago, bldg., to Enjay Constr. Co., 160 North LaSalle St., Chicago. CD 5/20—ENR 5/28.

★†**Illinois**—U. S. Eng., P. O. Box 59, Louisville, Ky., Group A1, temporary bldgs., to Zisken Constr. Co., Inc., 4430 W. Division St., Chicago***Group A2, bldgs., etc., to Emil Anderson, 3650 West Belle Plaine, Chicago***Group A3, temporary bldgs., etc., to H. D. White Co., 2202 W. 107 St., Chicago. Bids 5/22. CD 5/10.

★†**Illinois**—U. S. Eng., U. S. Courthouse & Custom House, St. Louis, Mo., temporary bldgs., Sangamon Co., to Kremer Constr. Co., Chemical Bldg., St. Louis, Mo., **$100,000-$500,000.**

★†**Indiana** — Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., housing, to Hussman-Ligonier Co., 2601 N. Leffingwell St., St. Louis, Mo. **$1,125,000.** Project originally planned at Norfolk and Portsmouth, Va. CD 3/12—ENR 3/19, under CA.

†**Iowa**—U. S. Eng., Clock Tower Bldg., Rock Island, Ill., laundry facilities, to Priester Constr., Co., Davenport Bank Bldg., Davenport.

†**Kansas**—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., bldgs., to H. H. Fox Constr. Co., Railway Exch. Bldg., Kansas City, Mo. Howard-Needles-Tammen & Bergendoff, Orear Leslie Bldg., 1012 Baltimore St., Kansas City, Mo., archts.

†**Louisiana**—Government Agency, bldgs., to R. P. Farnsworth & Co., Inc., 1515 S. Salcedo St., New Orleans. Awarded 7/13. C. B. Schoeppel & A. Southwell, 1464 Ogden St., N.W., Wash., D. C., archts. G. P. Rice, Baronne Bldg., New Orleans, engr.

†**Louisiana**—U. S Eng., foot of Prytania St., New Orleans, hospital bldgs., Inv. 1096-42-4, to Tudor & Ratcliff, Alexandria. Awarded 7/13.

★†**Louisiana**—U. S. Eng., Postoffice & Courthouse, Vicksburg, Miss., military installation, to A. Farnell Blair, Decatur, Ga. To exceed **$3,000,000.** CD 7/3—ENR 7/9.

★†**Louisiana**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., bldg., to R. P. Farnsworth & Co., Inc., 1515 S. Salcedo St., New Orleans. Fromherz Associates, 226 Carondelet St., New Orleans, archts.

★†**Maryland** and **West Virginia** — Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., housing, to John A. Johnson & Sons, Inc., 268 41 St., Brooklyn, N. Y. **$6,010,000.** Project originally planned at Norfolk and Portsmouth, Va. CD 3/12—ENR 3/19, under CA.

★†**Massachusetts**—Chicopee Housing Auth., 40 Center St., Chicopee, housing, Project MASS 8-1, for NHA, to M. Spinelli & Sons Co., Inc., 38 Chauncy St., Boston. **$983,000.** CD 6/29—ENR 7/2.

★†**Massachusetts**—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., addnl. bldgs., to M. J. Walsh & Sons Constr. Co., Shawmut Ave., Holyoke. Est. less than **$1,-000,000.**

†**Massachusetts**—U. S. Eng., Park Square Bldg., Boston, bldgs., to J. G. Roy & Sons Co., 21 Silver St., Springfield. Est. under **$150,000.** Bids 7/6. CD 7/7—ENR 7/9.

★†**Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, erecting and field painting structural steel for bldgs., to Whitehead & Kales, River Rouge, less than **$1,-000,000.**

†**Missouri**—U. S. Eng., 800 U. S. Courthouse & Customhouse, St. Louis, bldgs., to E. A. Brunson Constr. Co., 4952 Forest Park Blvd., St. Louis. Bids 7/2.

★†**Missouri**—U. S. Eng., Davidson Bldg., Kansas City, bldgs., to McCarthy Bros. Constr. Co., 4903 Delmar Bldg., St. Louis. Est. approx. **$700,000.**

†**Missouri**—U. S. Eng., Courthouse & Customhouse, St. Louis, bldgs. etc., to John Eppie Constr. Co., Columbia.

†**New Jersey**—U. S. Eng., Fort Monmouth, addnl. facilities, to E. M. Johnson, 706 Bergen Ave., Jersey City. Bids 7/7.

†**New Jersey**—U. S. Eng., Penn Mutual Bldg., Phila., Pa., bldgs., to E. M. Johnson, 706 Bergen Ave., Jersey City.

†**New Jersey**—U. S. Eng., 120 Wall St., New York, N. Y., military housing, roads, walks, sewers, etc., to Arthur Veneri Co., 259 N. Broad St., Elizabeth.

★†**New Mexico**—U. S. Eng., Albuquerque, storage bldgs., Eddy Co., to E. S. McKittrick Co., Inc., 7839 Santa Fe Ave., Huntington Park, Calif., **$100,000-$500,000.**

★†**New York**—U. S. Eng., Chimes Bldg., Syracuse, addnl. bldgs., paving, to O'Driscoll & Grove, Inc., and Chapman-Kruge Engineering Co., 247 Park Ave., New York. **$3,954,000.**

★†**North Carolina** — Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., demountable housing, to Green Lumber Co., Laurel, Miss. Est. **$1,037,050.** Project originally planned at Flora-Jackson, Miss. CD 2/19—ENR 2/26, under CA.

★†**North Carolina** — Pub. Housing Auth., NHA, Peachtree and Broad Sts., Atlanta, Ga., demountable housing, to Hardin & Ramsey, 161 Spring St. N.W., Atlanta, Ga. **$962,975.** Project originally planned at Moultrie and Valdosta, Ga. CD 2/18—ENR 2/26, under CA.

†**North Carolina**—HEATING SYSTEM, etc.—U. S. Eng., Charlotte, heating sys., boiler house, to A. Z. Price Co., Inc., Piedmont Bldg., Charlotte; heating sys. motor repair shop, to Irving C. Walker Plumbing & Heating Co., 122 S. College St., Charlotte. Bids 7/16.

★†**Ohio** — Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, housing, Proj. Ohio 33049, to Hunkin-Conkey Constr. Co., 1740 E. 12 St., Cleveland. Est. **$6,800,000.**

★†**Ohio**—U. S. Eng., Federal Bldg., Detroit, Mich., bldgs., to Steinle-Wolfe, Inc., 1515 Croghan St., Fremont, less than **$1,000,000.**

★†**Ohio**—U. S. Eng., Wright Field, Dayton, bldg., to F. K. Vaughn Building Co., 708 1st Natl. Bank Bldg., Hamilton. Est. **$500,000** to **$1,000,000.** Bids 7/8.

★†**Ohio**—U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., temporary office bldg., to The Knowlton Constr. Co., Bellfontaine, less than **$1,000,000.**

★†**Ohio**—U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., fire station and guard house, to The Knowlton Constr. Co., Bowling Green, less than **$1,000,000.**

†**Rhode Island**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., preliminary survey, housing. Over $150,000.

★†**Pennsylvania**—Industrial Company, plant, to Rust Engineering Co., Clark Bldg., Pittsburgh. Est. over **$5,000,000.** Federally financed. Frack & Frack, 517 Martin Bldg., N.S. Pittsburgh, and Janssen & Cocken, 800 Century Bldg., Pittsburgh, archts. Morris Knowles, Inc., 1312 Park Bldg., Pittsburgh, engrs.

PUBLIC BLDGS. (Contracts Awarded, Con'td.)

★**†Pennsylvania**—Industrial Company, manufacturing facilities, to Tate Jones & Co., Inc., Leetsdale. Est. **$500,000** to **$1,000,000.** Defense Plant Corp. will finance.

★**†Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., demountable housing, Proj. Pa. 36023, to Silverblatt & Lasker, Inc., 25 W. 45 St., New York, N. Y. **$715,250.** Awarded 7/17. W. T. Monahan, Marine Bank Bldg., Erie, engr. CD 6/8—ENR 6/11.

★**†Pennsylvania**—U. S. Eng., Standard Oil Bldg., Baltimore, Md., bldg., to B. Perini & Sons Inc., Montwait Ave., Framingham, Mass., and Rugo Constr. Co., Inc., 80 Boylston St., Boston, Mass. To exceed **$3,000,000.**

†South Carolina—U. S. Eng., Charlotte, bldgs., to C. B. Edgeworth, Cheraw. Bids 7/14.

†Texas—Rubber Reserve Corp., RFC., 811 Vermont Ave. N.W., Wash., D. C., storage plant, day labor. **$75,000.**

★**†Texas**—U. S. Eng., Citizens Bank Bldg., Denison, general housing, Lamar Co., to Builders Constr. Co., Perrine Bldg., Oklahoma City, Okla., **$100,000-$500,000.**

†Texas—U. S. Eng., Fort Sam Houston, bldgs., Spec. 42-148, to Geo. P. O'Rourke Const. Co., 2019½ Jackson St., Dallas, **$378,000.** CD 7/3.

†Texas—U. S. Eng., Masonic Bldg., Amarillo, bldgs., Inv. 357-42-244, to Randall Constr. Co., Amarillo, **$212,000.** Bids 6/27. CD 6/11—ENR 6/18.

†Texas—U. S. Eng., Fort Sam Houston, motor repair shop frame bldgs., Spec. 42-148, to Geo. P. O'Rourke Const. Co., 2019½ Jackson St., Dallas. **$56,000.**

†Texas—U. S. Eng., Fort Sam Houston, bldg., to Hawley & Riley, 523 Donaldson St., San Antonio, **$68,000*****water distr. lines, and sanitary collecting lines, facilities, to Hays & Donathan, 6902 Main St., Houston **$28,300** and **$36,000** respectively. Grand total $132,300.

†Texas—U. S. Eng., Fort Sam Houston, Contr. 5, bldgs., utilities, to Rose Constr. Co., Abilene, **$150,000.**

★**†Texas**—U. S. Eng., Fort Sam Houston, to Templeton-Cannon, San Angelo, bldgs., **$860,000;** steam distr. sys., **$29,440;** sanitary sewerage sys., **$66,200;** water supply and distr. lines, **$36,600,** all foregoing Spec. 42-146. Grand total $992,240. Bids about 6/30. CD 6/25.

★**†Utah**—U. S. Eng., 32 Exchange Pl., Salt Lake City, plant, to W. E. Callahan Constr. Co., 714 W. Olympic Blvd., Los Angeles, Calif., less than **$3,000,000.** Bids 7/8; bldg., to H. Dorman, 224 Interurban Bldg., Salt Lake City, **$247,900.** Bids 7/1.

★**†Utah**—U. S. Eng., 32 Exchange Pl., Salt Lake City, housing, to Daley Bros., 426 Bryant St., San Francisco, Calif. Less than **$2,000,000.** Bids 7/13. CD 6/30—ENR 7/2.

★**†Washington**—Bremerton Housing Auth., Bremerton, housing, for NHA, to Lease & Leigland, Dexter Horton Bldg., Seattle, **$1,305,000.** CD 7/15 under LB, and ENR 6/4 under BA.

†Wisconsin—Industrial Company, general remodeling, rebuilding bldgs., to Hoeppner-Bartlett Co., 631 E. Madison St., Eau Claire. Federally financed. Klinger & Hubbard, 218 S. Barstow St., Eau Claire, archts. Engineering Associates, 64 W. Randolph St., Chicago, Ill., equip. engrs.

★**†Wisconsin**—U. S. Eng., U. S. Post Office & Customhouse, St. Paul, Minn., plant, to Permanent Constr. Co., 208 S. La Salle St., Chicago, Ill. Est. over **$3,000,000.** Defense Plant Corp. will finance. Industrial company will operate. Smith-Hinchman & Grylls, Inc., 800 Marquette Bldg., Detroit, Mich., archts. CD 7/3—ENR 7/9, under CA.

★**†Pacific Northwest**—U. S. Eng., Textile Tower, Seattle, Wash., military housing facilities, to W. G. Clark, 408 Aurora Ave., Seattle, Wash. ******* concrete construction, to MacRae Bros., 2733 4 Ave. S., Seattle, Wash. *******military housing facilities, to N. Mortensen & Co., 1021 Westlake Ave. N., Seattle, Wash.

COMMERCIAL BUILDINGS

PROPOSED WORK

★**Conn., East Hartford (br. Hartford)**—Millbrook Park Co. Inc., 180 Main St., sketches 1½ story homes, Naubuc Ave., Brewer and Forbes St. $2,100,000.

★**O., Cleveland**—American Home Building Corp., M. S. Arnoff, in charge, 3072 Scarborough Rd., 150 frame houses. $900,000.

BIDS ASKED

Bids Asked

★**Calif., San Bernardino**—Douglas & Baird, archts., 1041 E. Green St., Pasadena, segregated bids 198 five room, frame, stucco dwellings, H, I and Lincoln Sts. between Bussy and 29 Sts., for Western Defense Housing Corp., c/o archts. $594,000.

★**Calif., San Pedro** — Douglas & Baird, archts., 1041 E. Green St., Pasadena, segregated bids frame, stucco dwellings, Avalon and Sepulveda Blvds., for Western Defense Housing Corp., c/o architects. $687,000.

★**Calif., Fontana** — Fontana Corp., 9437 Santa Monica Blvd., Los Angeles, single and triplex dwellings. Owner builds. Over **$1,000,000.**

Calif., Long Beach — Bixby Highland Co., Long Beach, 81 frame, stucco dwellings, Carson Ave. and Cherry St., to Rand Constr. Co., 6239 Wilshire Blvd., Los Angeles. **$250,000.**

Calif., Richmond — Valu Bilt Homes, 2026 San Pablo Ave., El Cerrito, 1 story cottages, to R. F. Johnson & Son, 2026 San Pablo Ave., El Cerrito. Est. over **$150,000.**

Calif., San Leandro—Lucky Homes, Inc., 695 E. 14 St., San Leandro, 420 homes, Donovan tract, to A. T. Beckett, 366 40 St., Oakland. Est. over **$1,000,000.**

★**Calif., San Leandro**—Stanley M. Davis, 640 Bancroft St., dwelling units, MacArthur Park, to C. W. Leekings, 1421 96 Ave., Oakland, to F. W. Valley, 1823 Grove St., Oakland, and to W. G. Lincoln, 514 Estudillo Ave., about **$850,000;** street work 30 acre housing tract, Davis St., to F. Lopez and U. B. Lee, 1159 Estudillo Ave. Est. over **$25,000.**

Conn., Bridgeport—Jennings Hills, Inc., 670 Huntington Rd., increased from 50 to 69 homes. Owner builds. **$331,300.** CD 6/25—ENR 7/2, under CA.

Ill., Cicero—Owner, c/o W. W. Kriebel, 1 N. La Salle St., Chicago, twenty-seven 2 story duplex residences, 59 Ct. and 59 Ave., to Sullivan Const. Co., 400 W. Madison St., Chicago. Est. **$250,000.**

Mass., Quincy—Oakvale Realty Trust, c/o L. W. Ross, archt., 20 Kilby St., Boston, 1½ story, 25x30 ft. frame homes, Faxon Lane. Quincy Ave. and Water St., to Victory Homes Bldg. Trust, 28 Appletree Lane, Weymouth, **$275,000.** CD 6/9—ENR 6/12.

O., Mayfield (P. O. Cleveland Heights)—P. A. Frye Co., Union Commerce Bldg., Cleveland, 50 houses, to Keyes-Treuhaft Co., 2460 Fairmount Blvd., Cleveland. Est. **$250,000.** CD 10/23—ENR 10/30.

INDUSTRIAL BUILDING

PROPOSED WORK

Conn., Bridgeport — FACTORY — Fletcher-Thompson Inc., archts., 1336 Fairfield Ave., soon lets contract 2 story, brick, steel factory, for Bridgeport Brass Co., H. T. Steinkrauss, genl. engr., 30 Grand St. $250,000. George S. Armstrong & Co. Inc., 52 Wall St., New York, N. Y., engrs. CD 7/14—ENR 7/16.

★**Ohio**—PLANT—Industrial Company, plant expansion, $1,000,000. A. E. Rowe, 1900 Euclid Ave., Cleveland, engr.

BIDS ASKED

Bids Asked July 27

Ont., Windsor—PLANT—J. H. Thomson, archt., 52 Chatham St. W., 1 and 2 story brick bldgs., for Colonial Tool Co., C. F. Lehr, mgr., 1857 Sandwich St. E. $140,000. CD 7/13—ENR 7/16.

Bids Asked about August 1

Wis., Union Center—PLANT—Baraboo Valley Creamery Assn., Union Center, milk dehydrating plant. $115,000 for bldg. Klingler Hubbard, 218 S. Barstow St., Eau Claire, archts. CD 5/26—ENR 5/28.

Bids Asked August 8

Wis., Sparta—PLANT—Sparta Co-operative Creamery Assn., Sparta, milk dehydrating plant. $125,000 for bldg. Klingler & Hubbard, 218 S. Barstow St., Eau Claire, archts. CD 5/26—ENR 5/28.

Bids Asked

O., Cleveland—FACTORY—Sommer & Adams Co., L. A. Sommer, pres., 1854 Euclid St., brick, steel, factory and office. $80,000. E. G. Hoefler, 5005 Euclid Ave., engr. CD 5/20—ENR 5/28.

Pennsylvania — PLANT — Carnegie-Illinois Steel Corp., J. L. Perry, pres., Carnegie Bldg., Pittsburgh, general contract 1 story, bsmnt., 57x72 ft., brick pump sta. and equip. $50,000-$100,000. J. M. Rice, Century Bldg., Pittsburgh, designing engr.

CONTRACTS AWARDED

California — PLANT — Industrial Company, bldgs., to E. S. McKittrick Co., 7839 Santa Fe Ave., Huntington Park. **$44,000.**

Calif., Bakersfield — PLANT — Haberfelde-Laughlin Steel Co., Bakersfield, 90x300 ft. steel plant, concrete fdns., electric furnace, to C. R. Nicholson, 1733 Buena Vista St. **$150,000.**

Ill., Chicago—FACTORY—Aetna Ball Bearing Mfg. Co., 4600 Schubert Ave., 1 story factory addn., to W. J. Scown, 54 W. Randolph St. Est. **$50,000.**

Ill., Chicago—PLANT—International Rolling Mill Products Co., 3136 W. 51 St., 1 story 80x400 ft., steel plant addn. 5019 S. Kedzie Ave., to M. A. Anderson, 7308 Rhodes Ave. Est. **$100,000.** CD 2/4—ENR 2/10.

★**Ill., South Beloit**—PLANT—Sager-Follansbee Co., general contract remodeling former Wanner-Malleable Casting Co. plant, to Webster Const. Co., 321 S. Wood St., Chicago. Total est. **$935,000.** Equipment Engineering Associates, 64 W. Randolph St., Chicago, engrs.

La., Shreveport—FOUNDRY — [illegible] Beaird Corp., 6200 St. Vincent Ave., to Werner Co., 1320 Pierre [illegible]dry addn. O'Neill, Somdel & Neild, City [illegible]ank Bldg., archts. Awarded 7/11. **$189,000.**

Mass., Lynn—PLANT—Gener[illegible]lectric Co., 920 Western Ave., plant, No[illegible] to E. C. Blanchard Co., 940 Broad St. [illegible]er **$40,000.** Bids 7/6. CD 7/1.

Mass., Malden (br. Boston)—FACTORY—Chas. Niedner's Sons Co., 10 [illegible]mes St., 1 story, brick factory addn., [illegible] Alfred L. Jacobson, Inc., 134 Salem St. C[illegible] Springall, 50 Park St., archt.

Mass., Quincy — PLANT — Industrial Company, plant, to Chandler Constr. Co., Inc., 45 Newbury St., Boston. Bids 7/3. CD 7/2—ENR 7/9.

Mich., Fraser—FACTORY—Cross Gear & Machine Co., Fraser, 1 story, brick, steel, concrete factory, plain fdn., to Darr & Armstrong, Inc., 2041 Fenkell Ave., Detroit. Est. **$50,000.** H. E. Beyster Corp., 3-[illegible] General Motors Bldg., Detroit, engrs.

N. J., Bloomfield — FACTORY — Bloomfield Tool Corp., 35 Farrand St., 3 story, irregular sized, rein.-con. factory, to Walter Kidde Constructors, Inc., 140 Cedar St., New York, N. Y. **$100,000.**

N. J., East Orange—PLANT—Western Electric Co., 100 Central Ave., Kearny, impvs. plant, cable dock, concrete platforms, shed, retaining wall, fence, etc., Grove St. to John W. Ferguson Co., 152 Market St., Paterson. Over **$40,000.**

N. J., Ridgefield — WAREHOUSE — Corn Products Refining Co., 17 Battery Pl., New York, N. Y., warehouse, Railroad Ave., to William J. Lange, Inc., 1617 51 St., North Bergen. **$100,000.**

O., Cleveland—FACTORY—Cleveland Wire Spring Co., J. W. Campbell, pres., 1281 E. 38 St., 1 story, 35x115 ft. and 40x75 ft., brick, concrete factory addns., to Boldt-Rapp Co., 4404 Pershing Ave. Est. **$50,000.** Awarded 7/6. CD 10/16 and 11/12—ENR 10/23 and 11/20.

O., Cleveland—FACTORY—Ohio Tool Co., L. E. Butzman, in charge, 3160 W. 106 St., factory rehabilitation, to J. L. Hunting Co., Chester-Ninth Bldg. Est. **$40,000.** Mellenbrook, Foley & Scott, 26 Front St., Berea, archts.

Pennsylvania—FACTORY—Continental Roll & Steel Fdry. Co., F. H. Feigenshuh, purch. agt., 144 and Railroad Sts., East Chicago, Ind., manufacturing facilities substructures, to Rose & Fisher, 3215 McClure Ave., NS Pittsburgh. Est. less than **$50,000.**

Pa., Erie—PLANT—Erie Foundry Co., D. A. Currier, pres., 1253 W. 12 St., 1 story, 100x450 ft. plant addn., to Henry Shenk Co., 1125 Sassafrass St. CD 77—ENR 7/9.

Pa., Franklin—PLANT—Chicago Pneumatic Tool Co., Franklin, 1 story, 120x534 ft., plant addn. and 1 story, 90x220 ft. foundry addn. to Osborn Constr. Co., Franklin. Est. **$250,000.** Awarded **7/10.**

Pa., Mill Hall—PLANT—Sheffield Farms Co. Inc., 425 W. 57 St., New York, N. Y., 1 story milk products plant, own forces. **$40,000** incl. equip. CD 7/7—ENR 7/9.

Pa., Phila.—PLANT—Kellett Co., 57 St. and Gray's Ave., plant addn., to H. D. Rosengarten, 2006 Chancellor St.

Pa., Titusville — PLANT — Titusville Iron Works, Div. Struthers-Wells-Titusville Corp., Titusville and Warren, 2 story plant addn., to Leo Ludwig Const. Co., 20 W. Main St., Falconer. Est. **$40,000** with equip. Beck & Tinkham, Bailey Bldg., Jamestown, N. Y., archts.

Pa., Wilkes-Barre—PLANT—Pressed Steel Co., Penna. Ave., 1 story plant addn., Penna. Ave., separate contracts. **$40,000** with equip.

Pa., Williamsport — PLANT—Pennsylvania Power & Light Co., Williamsport, boiler unit at steam generating plant, foot of Hepburn St., separate contracts. **$40,000.** CD 6/26—ENR 7/9.

R. I., Bristol—PLANT—Bristol Mfg. Corp., Wood St., 1 story, 230x290 ft., concrete block factory, Buttonwood St., to J. P. Flynn, 112 Lenox Ave., Providence. Est. over **$40,000.** J. E. Condon, 26 President Ave., Providence, engr.

Wis., Milwaukee — STORAGE, etc. — Globe Steel Tube Co., 3839 W. Burnham St., 1 story, 40x100 ft. and 40x64 ft., brick storage bldg. and garage, concrete fdn., to Gebhard-Berghammer, Inc., 5420 W. State St. H. H. Hay, 4115 N. Stowell Ave., archt.

Wis., Milwaukee—FACTORY—Nordberg Mfg. Co., 33073 S. Chase Ave., 1 story, 137x157 ft. factory, 2nd story, 51x122 ft. office bldg. addn., 1 story, 44x600 ft. factory addn., steel, brick, concrete fdns., to Selzer-Ornst Co., 6222 W. State St., Wauwatosa.

Wis., Milwaukee — GARAGE — Wisconsin Electric Power Co., 231 W. Michigan St., 1 story, 38x162 ft., brick garage, concrete fdn., W. Fiebrantz Ave., to Robt. L. Reisinger & Co., 733 N. Van Buren St.

★**Ont., Hamilton**—PLANT—Steel Co. of Canada, Ltd., Wilcox Ave., plant addn., 75x300 ft., brick, steel main bldg., 20x75 ft. bottom ovens bldg., 20x75 ft. blower bldg., 70x150 ft. bottom house, 20x150 ft. bottom house lean to, installing equip. in Bessemer plant, own forces. Total cost **$2,775,000.**